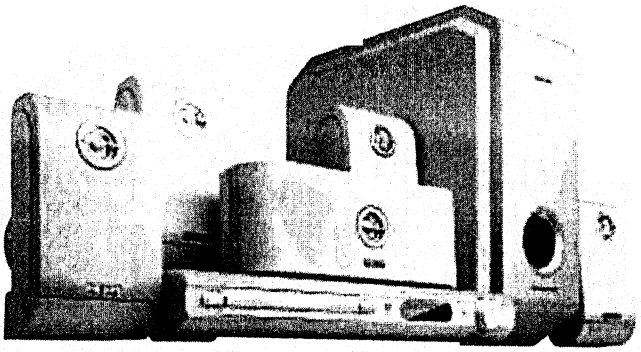
DVD Receiver

LX3900SA/01/05

Service
Service
Service



Service Manual

TABLE OF CONTENTS

	Page
Location of pc boards & Version variations	1-2
Technical Specifications	1-3
Measurement setup	1-4
Service Aids, Safety Instruction, etc.	1-5
Disassembly Instructions & Service positions	2-1
Service Test Program	3-1
Region code, Software version & upgrades	3-2
Set Block diagram	4-1
Set Wiring diagram	5-1
Front Board	6
AV Board	7
Amplifier Board	8
Speaker Connector Board	9
Module SD6.1 RX	10
Set Mechanical Exploded view & parts list	11

CLASS 1
LASER PRODUCT

© Copyright 2004 Philips Consumer Electronics B.V. Eindhoven, The Netherlands
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise without the prior permission of Philips.

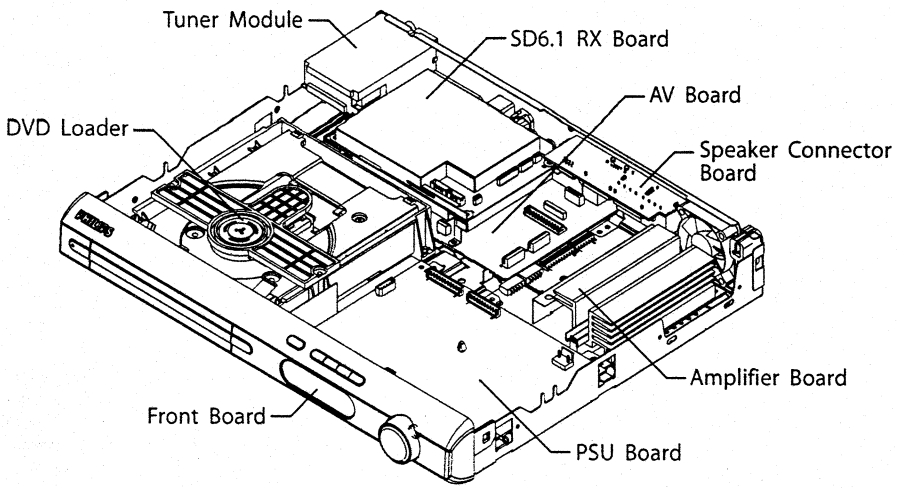
Published by BB 0406 Service Audio Printed in The Netherlands Subject to modification

GB 3139 785 30570

Version 1.0

PHILIPS

LOCATION OF PC BOARDS



VERSION VARIATIONS:

Type /Versions: / Features & Board in used:	LX3900SA							
	/01	/05	/69	/75				
Progressive Scan								
Voltage Selector			x					
Digital In	x	x	x	x				
TV-In			x	x				
Aux-In	x	x	x	x				
Line-Out	x	x	x	x				
CVBS Output	x	x	x	x				
S-Video Output	x	x	x	x				
SCART Output	x	x						
Y/Pb/Pr (YUV) Component Video Output			x	x				
ECO Standby	x	x	x	x				

SPECIFICATIONS

GENERAL:

Mains voltage : 120V for /17
220-240V for /01/05/75
110-127V/220-240V Switchable for /69
Mains frequency : 50/60Hz
Power consumption : < 0.6W at ECO Standby
< 80W at 1/8 P_{rated}
Dimension centre unit : 360 x 55 x 325mm

TUNER:

FM

Tuning range : 87.5-108MHz
Grid : 50kHz
100kHz for /17/69
IF frequency : 10.7MHz ± 25kHz
Aerial input : 75Ω coaxial
Sensitivity at 26dB S/N : < 7µV
Selectivity at 600kHz bandwidth : > 25dB
IF rejection : > 60dB
Image rejection : > 25dB
Distortion at RF=1mV, dev. 75kHz : < 3%
-3dB Limiting point : 8µV
Crosstalk at RF=1mV, dev. 40kHz : > 18dB

MW

Tuning range : 531-1602kHz
530-1700kHz for /17/69
Grid : 9kHz
10kHz for /17/69
IF frequency : 450kHz ± 1kHz
Aerial input : Frame aerial
Sensitivity at 26dB S/N : < 4.0mV/M
Selectivity at 18kHz bandwidth : > 20dB
IF rejection : > 45dB
Image rejection : > 28dB
Distortion at RF=50mV, m=80% : < 5%

AMPLIFIER:

Output power
Front : 50W RMS / channel
Rear : 50W RMS / channel
Centre : 50W RMS
Subwoofer : 75W RMS

Frequency response ±3dB : 20Hz-20kHz
Hum (Volume Minimum) : 200nW
Residual noise (Volume Minimum) : 40nW

Input sensitivity
Aux In : 1V ± 3dB at 39kΩ
Scart In : 500mV ± 3dB at 39kΩ
Output sensitivity
Line Out (Left/Right) : 0.7V ± 2dB at 47kΩ
Scart Out (Left/Right) : 0.6V ± 2dB at 10kΩ

COMPACT DISC/VCD/DVD:

Video Decoding : MPEG-2/MPEG-1/MPEG-4/Div X 4 & 5
Video DAC : 12 Bits
Signal System : PAL / NTSC
Video Format : 4:3 / 16:9

CVBS Out 1)
CVBS level : 1.0 ± 0.1V_{p-p}
Luminance S/N : >= 55dB

S-Video Out 1)
Y level : 1.0 ± 0.1V_{p-p}
Y S/N : >= 60dB
C level (burst) : 286mV_{p-p} +1/-4 dB

RGB/YUV Out 1)
Amplitude : 0.7 ± 0.1V_{p-p}
S/N : >= 60dB

1) Output terminals to be terminated with 75Ω

DISMANTLING INSTRUCTIONS

Dismantling of the DVD Loader

1) The tray can be manually open by inserting a minus screw driver and push the lever in the direction as shown in Figure 1 to unlock the tray before sliding it out.

2) Slide out the tray and remove the Cover Tray assembly (pos 110 + pos 111 + pos 112) as shown in Figure 2.

3) Loosen 5 screws to remove the Cover Top (pos 240).
   - 1 screw each on the left & right side (pos 272)
   - 3 screws on the rear (pos 270)

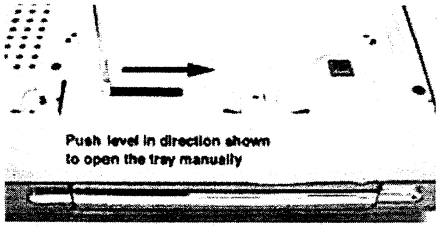


Figure 1

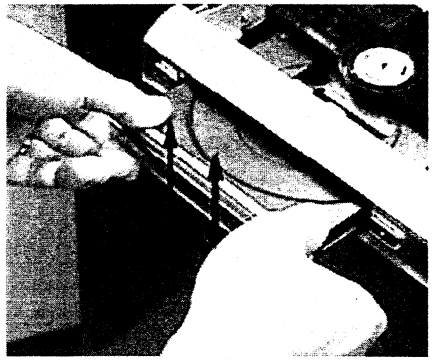


Figure 2

4) Loosen 4 screws D (see Figure 5) to remove the DVD Loader (pos 1103-0001).

Dismantling of the Tuner Module & Speaker Connector Board

1) Loosen 2 screws A (see Figure 4) to remove the Tuner Module (pos 1105).

2) When the Tuner Module (pos 1105) become defective and need to be replaced, make sure the Lug of the Tuner Module is bend as shown in Figure 3.

   Note : The Lug of the Tuner Module is purposely bend in this way (see Figure 3) to prevent damage to the Flex Cable.

3) Loosen 2 screws B (see Figure 4) to remove the Speaker Connector Board (pos 1102).

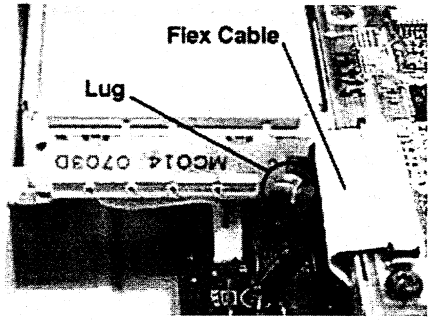


Figure 3

Dismantling of the PSU Board, Amplifier Board, SD6.1 RX Board & AV Board

1) Loosen 4 screws E and uncatch C1 (see Figure 5) to remove the PSU Board (pos 1104).

2) Loosen 4 screws F (see Figure 5) to remove the Amplifier Board (pos 1107).

3) Loosen 2 screws G (see Figure 5) to remove the SD6.1 RX Board (1103-1001).

4) Loosen 2 screws H and uncatch C2 (see Figure 6) to remove the Shield AV (pos 180).

5) Loosen 5 screws C (see Figure 4) and uncatch 2 catches C3 (see Figure 7) to remove the AV Board (pos 1101).

2-1

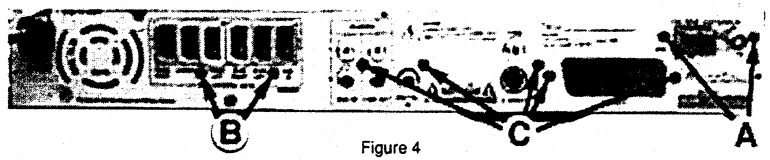


Figure 4

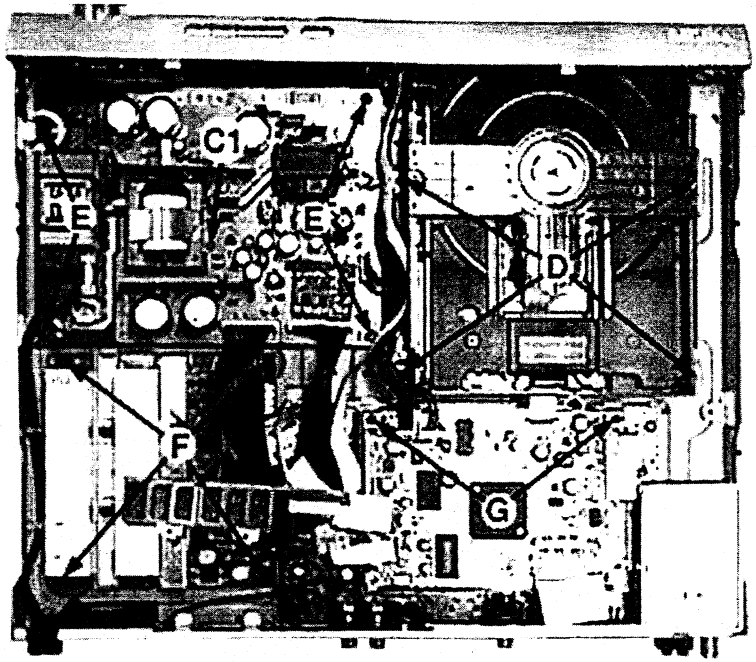


Figure 5

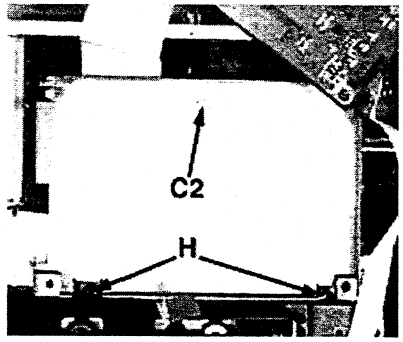


Figure 6

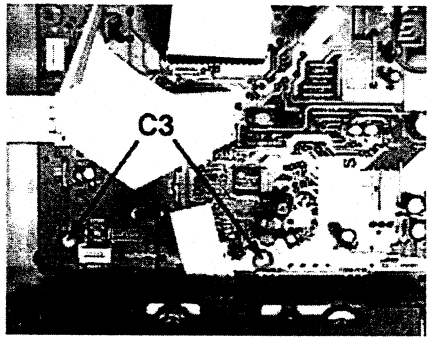
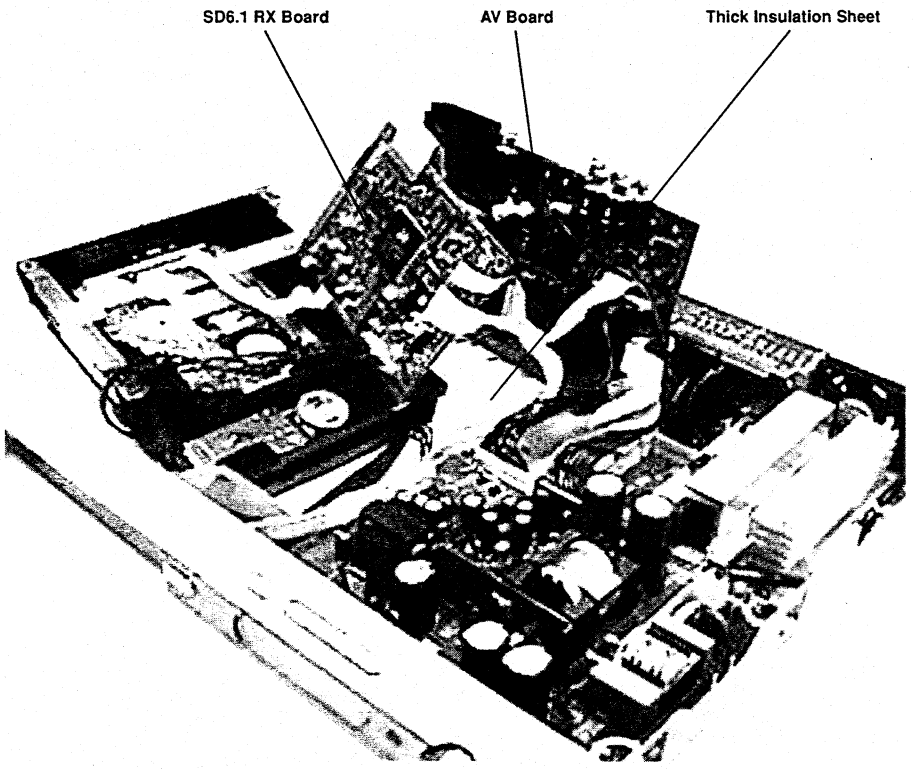
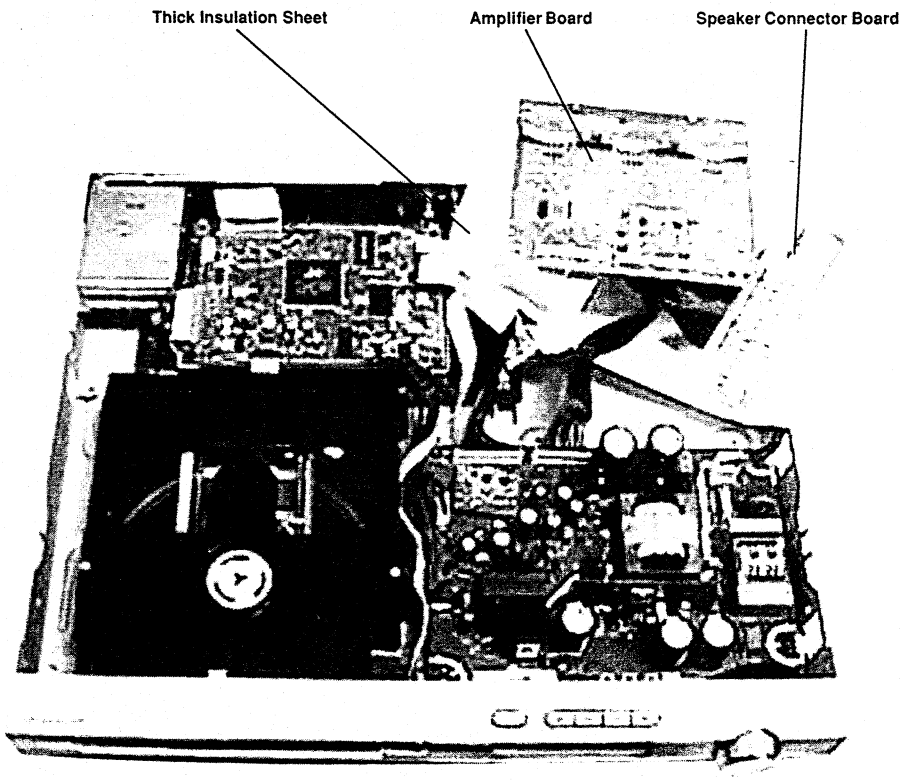


Figure 7

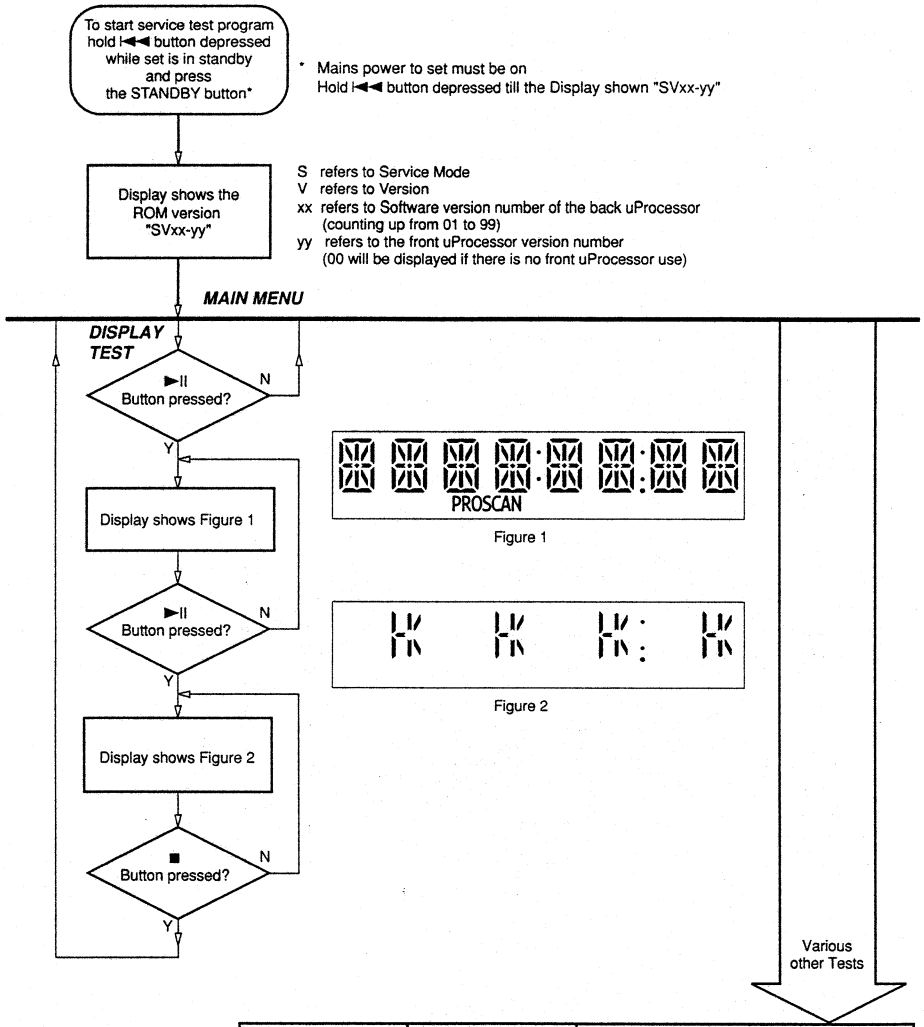
2-2

SERVICE POSITIONS





SERVICE TEST PROGRAM


To start service test program hold I◄◄ button depressed while set is in standby and press the STANDBY button*
* Mains power to set must be on
Hold I◄◄ button depressed till the Display shown "SVxx-yy"
Display shows the ROM version "SVxx-yy"
S refers to Service Mode
V refers to Version
xx refers to Software version number of the back uProcessor (counting up from 01 to 99)
yy refers to the front uProcessor version number (00 will be displayed if there is no front uProcessor use)
MAIN MENU
DISPLAY TEST
►II Button pressed?
N
Y
Display shows Figure 1
PROSCAN
Figure 1
►II Button pressed?
N
Y
Display shows Figure 2
Figure 2
■ Button pressed?
N
Y
Various other Tests

TEST	Activated with	ACTION
EEPROM FORMAT TEST	I◄◄ I◄◄ to Exit	Load default data. Display shows "NEW". ***Caution!*** ***All presets from the customer will be lost!!***
ROTARY ENCODER TEST	VOLUME Knob	Display shows value for 2 seconds. Values increases or decreases in steps of 1 until 0 (VOL MIN) or 40 (VOL MAX) is reached.
LEAVE SERVICE TEST PROGRAM	Disconnect mains cord	

Procedure to change Tuner Grid (not for all versions)

1) Power up the set and select **TUNER** source.
2) Hold "PLAY" button depressed while set is in standby and press the "STANDBY" button.
3) Hold "PLAY" button depressed till the display shown '**PHILIPS->FM**' followed by display the new tuning grid '**GRID 9**' or '**GRID 10**'.

Note: Repeating the same action will toggle back to its previous tuning grid setting.

Reprogramming of DVD version Matrix

After repair, the customer setting and region code may be lost. Reprogramming will put the set back in the state in which it has left the factory, ie. with the default setting and the allowed region code.

To reprogram do as follows:

1) Power up the set and select **DISC** source.
2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
3) Press the following buttons on the Remote Control:
   <9> <9> <9> <9> <AUDIO> <1> ..... for LX3900SA/01
   <9> <9> <9> <9> <AUDIO> <2> ..... for LX3900SA/05
   <9> <9> <9> <9> <AUDIO> <3> ..... for LX3900SA/69
   <9> <9> <9> <9> <AUDIO> <4> ..... for LX3900SA/75
   <9> <9> <9> <9> <AUDIO> <5> ..... for LX3950W/01
   <9> <9> <9> <9> <AUDIO> <6> ..... for LX3950W/05
4) The display shows '**YYYY-ZZ**' and the tray will close.
   YYYY = model number (eg. 3900, 3950, etc.)
   ZZ = stroke version (eg. 01, 05, etc.)

Procedure for check Software version

1) Power up the set and select **DISC** source.
2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
3) Press "OSD" button on the Remote control.
4) The TV screen will shows:
   SD6.1 Vxx YYYY-ZZ P QQ
   SERVO: GGGGGGGG REG:D

   xx = version number
   YYYY = model number (eg. 3900, 3950, etc.)
   ZZ = stroke version (eg. 01, 05, etc.)
   P / D = region code
   QQ = version number of front uProcessor
   GGGGGGGG = version for servo code

Procedure to upgrade software

1) Power up the set and select **DISC** source.
2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
3) Place upgrade CD-ROM onto tray and close.
4) The set will response and display the following:
   - **LOAD** [After the disc is read, the tray will open for you to remove the disc]
   - **ERASE**
   - **WRITE**
   - **ERROR** [if upgrade is unsuccessful]
   - **UPG END -> PHILIPS** [if upgrade is successful]
   - **DISC->CLOSE->LOAD** [Tray will close indicating that the upgrade process is completed]
5) The whole process should not take more than 5 minutes.

Caution: Do not unplug the set until upgrade is completed.

Trade Mode

Trade mode is a feature that will block all set keys when enabled. It is for dealers to prevent customers from removing disc, changing source etc using the set keys. Rotary and Remote Control (RC) keys are still allowed in Trade mode.

To activate Trade Mode:

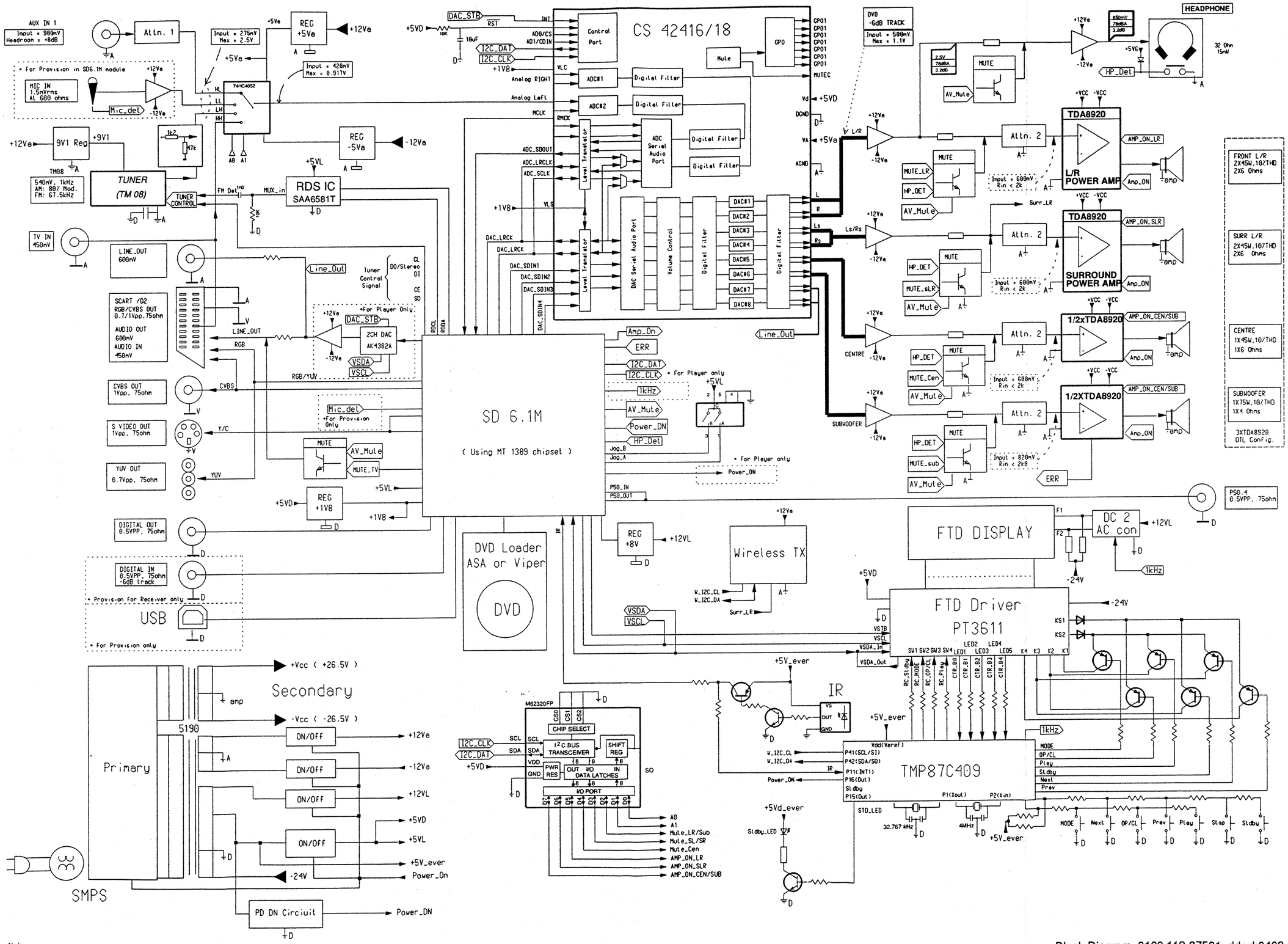
1) Power up the set and select **DISC** source.
2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
3) Then press buttons <2> <5> <9> on the RC.
4) The display shows '**TRA ON**' and the tray will close. Trade Mode is now enabled.

To deactivate Trade Mode:

1) Power up the set and select **DISC** source.
2) Open tray by press and hold "STOP"button on the RC.
3) Then press buttons <2> <5> <9> on the RC.
4) The display shows '**TRA OFF**' and the tray will close. Trade Mode is now disabled.

4-1

SET BLOCK DIAGRAM

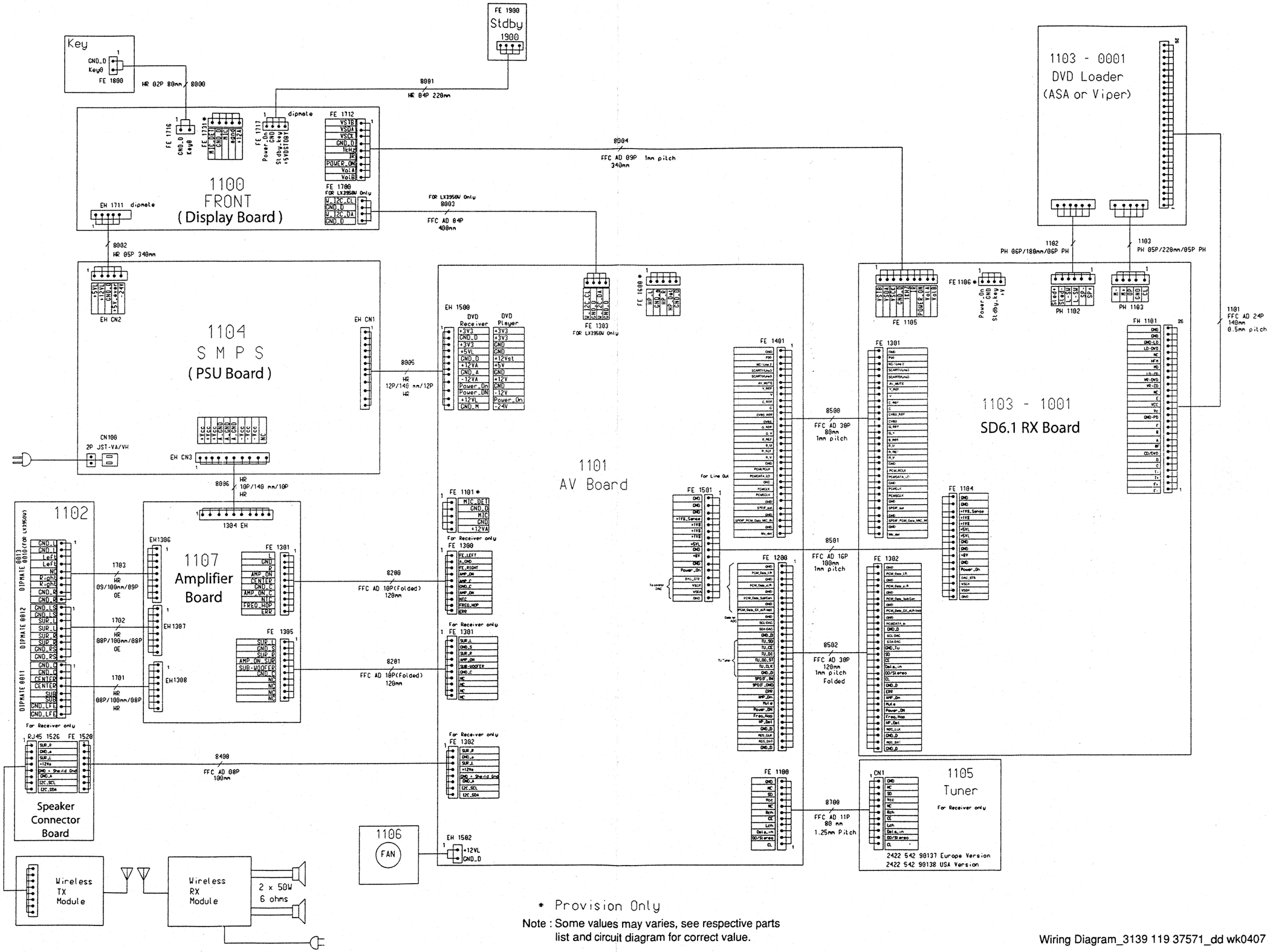


Note :
Power_DN - This signal is provided by the SMPS to Master control

Block Diagram_3139 119 37581_dd wk0402

5-1

SET WIRING DIAGRAM



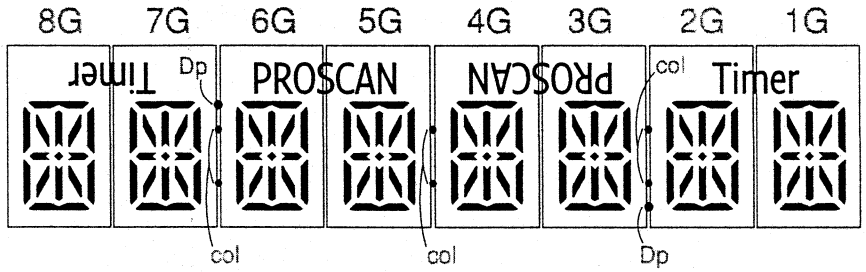
Note : Some values may varies, see respective parts list and circuit diagram for correct value.

FRONT BOARD

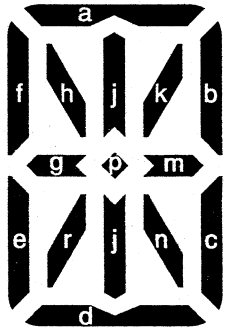
TABLE OF CONTENTS

FTD Display Pin Connection 6-1
Display part - Top & Bottom View Layout 6-2
Display part - Circuit Diagram 6-3
Key part - Layout & Circuit diagram 6-4
Standby part - Layout & Circuit diagram 6-5
Electrical parts list 6-5

FTD DISPLAY PIN CONNECTION



(1G - 8G)

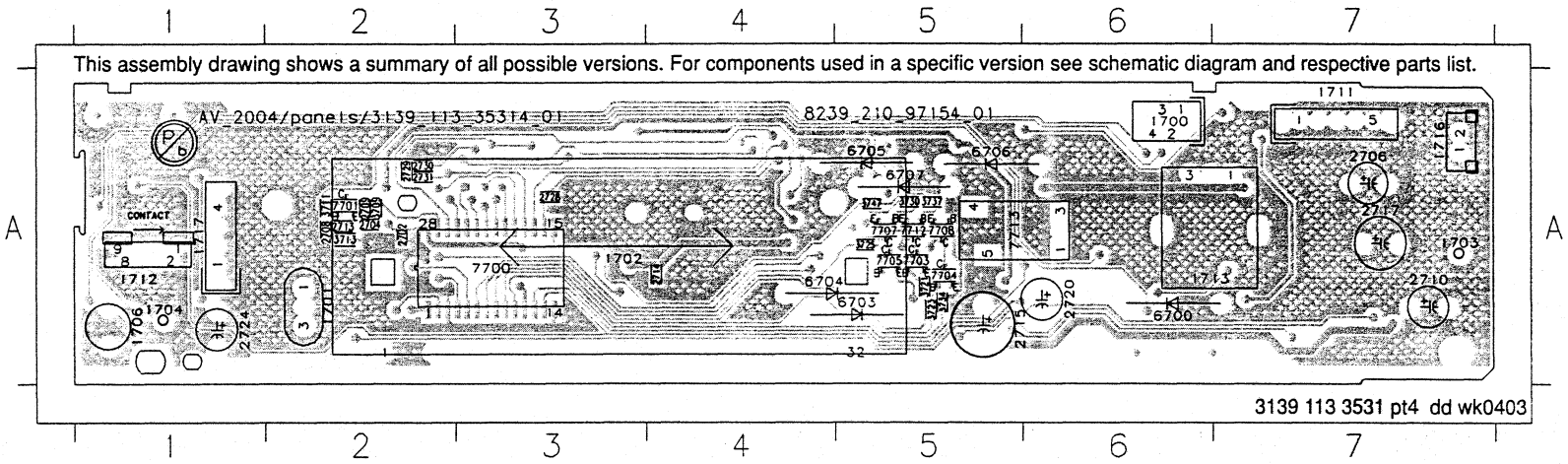


	8G	7G	6G	5G	4G	3G	2G	1G
P1	a	a	a	a	a	a	a	a
P2	j	j	j	j	j	j	j	j
P3	h	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d	d
P14	-	col		col		col		-
P15	p	p	p	p	p	p	p	p
P16	Timer		PROSCAN		PROSCAN		Timer	
P17	-	Dp		-	-	Dp		-

6-2

DISPLAY BOARD - TOP VIEW LAYOUT

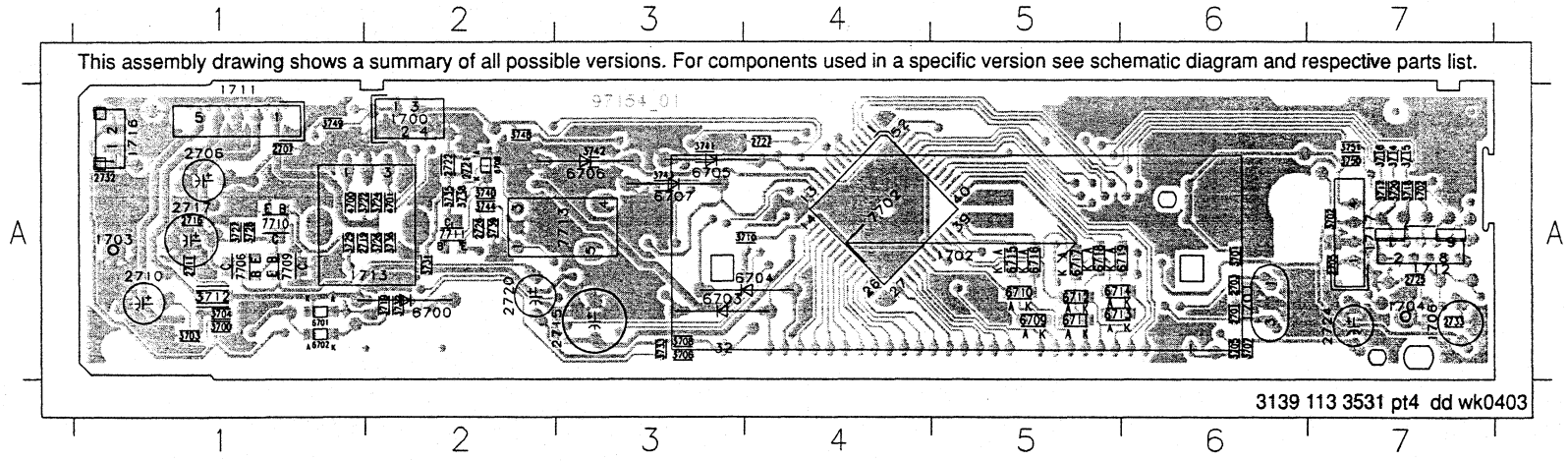
1700 A6	1704 A1	1713 A6	2704 A2	2710 A7	2717 A7	2729 A2	3711 A2	3725 A5	3747 A5	6705 A5	7701 A2	7707 A5
1701 A2	1706 A1	1716 A7	2706 A7	2713 A2	2720 A6	2730 A2	3713 A2	3730 A5	6700 A6	6706 A5	7703 A5	7708 A5
1702 A3	1711 A7	1717 A1	2708 A2	2714 A4	2724 A1	2731 A2	3721 A5	3734 A5	6703 A5	6707 A5	7704 A5	7712 A5
1703 A7	1712 A1	2702 A2	2709 A2	2715 A5	2728 A3	3709 A2	3723 A5	3737 A5	6704 A4	7700 A3	7705 A5	7713 A5


1 2 3 4 5 6 7
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
AV_2004/panels/3139_113_35314_01
8239_210_97154_01
A
3139 113 3531 pt4 dd wk0403

DISPLAY BOARD - BOTTOM VIEW LAYOUT

2701 A6	2719 A1	2732 A1	3704 A1	3712 A1	3719 A2	3728 A1	3736 A2	3743 A3	4700 A1	6709 A5	6715 A5	7706 A1
2703 A6	2721 A2	2733 A7	3705 A6	3714 A7	3720 A7	3729 A1	3738 A2	3744 A2	4701 A2	6710 A5	6716 A5	7709 A1
2705 A7	2722 A2	3700 A1	3706 A3	3715 A7	3722 A1	3731 A2	3739 A2	3748 A2	4702 A7	6711 A5	6717 A5	7710 A1
2707 A1	2725 A7	3701 A6	3707 A6	3716 A7	3724 A2	3732 A2	3740 A2	3749 A1	6701 A1	6712 A5	6718 A5	7711 A2
2711 A1	2726 A2	3702 A7	3708 A3	3717 A7	3726 A2	3733 A3	3741 A3	3750 A7	6702 A1	6713 A5	6719 A6	
2716 A1	2727 A4	3703 A1	3710 A4	3718 A7	3727 A1	3735 A2	3742 A3	3751 A7	6708 A2	6714 A5	7702 A4	

1700 A2	1702 A5	1704 A7	1711 A1	1713 A2	1717 A7	2710 A1	2717 A1	2724 A7	6703 A3	6705 A3	6707 A3	
1701 A6	1703 A1	1706 A7	1712 A7	1716 A1	2706 A1	2715 A3	2720 A2	6700 A2	6704 A4	6706 A3	7713 A3	


1 2 3 4 5 6 7
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list.
97164_01
A
3139 113 3531 pt4 dd wk0403

6-3

DISPLAY BOARD - CIRCUIT DIAGRAM

DISPLAY BOARD

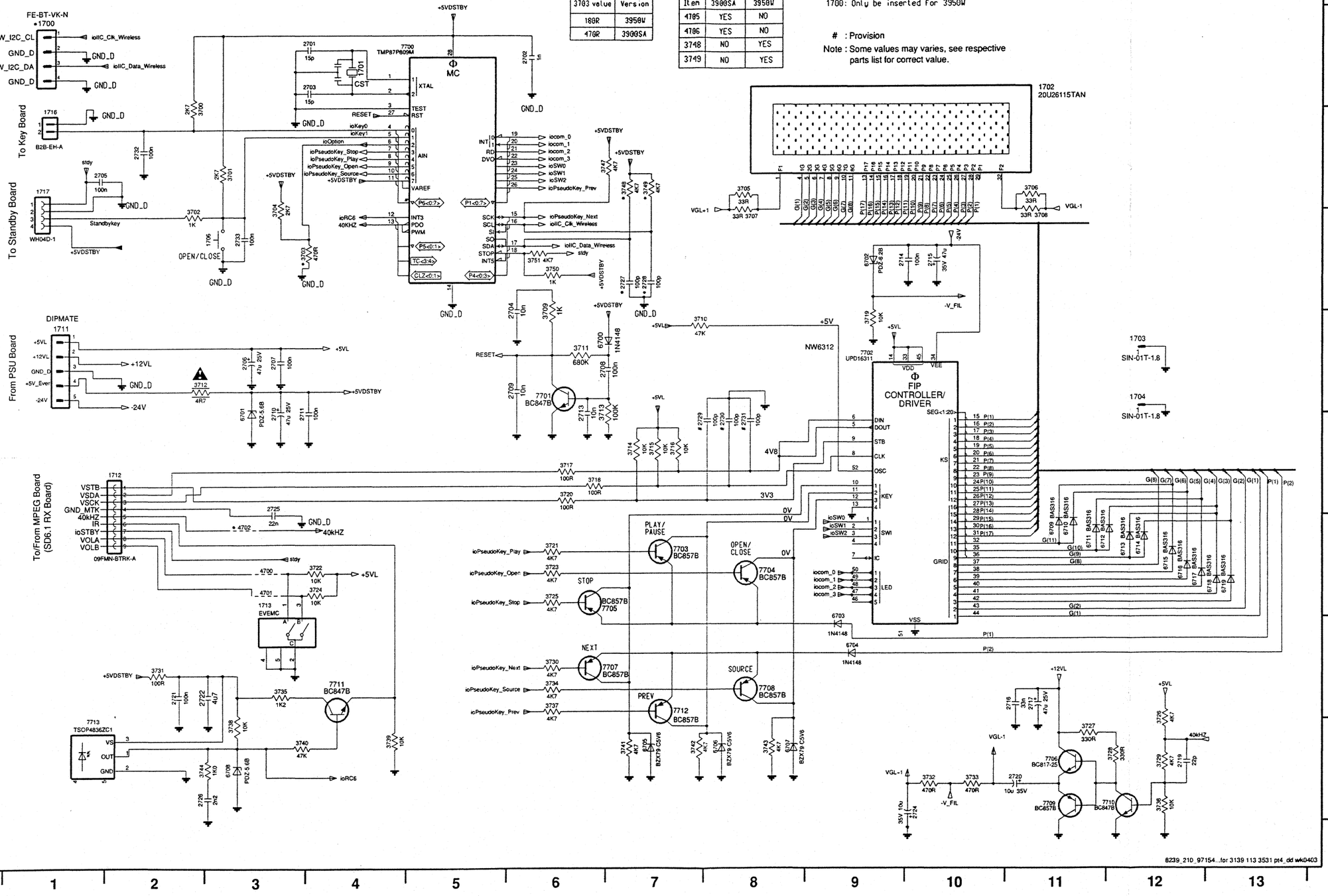
* ioOption	
3703 value	Version
180R	3950W
470R	3900SA

* Resistor insertion option for ioIIC_Clk_Wireless		
Item	3900SA	3950W
4705	YES	NO
4706	YES	NO
3748	NO	YES
3749	NO	YES

* 4702: No insertion for 3900SA and 3950W
1700: Only be inserted for 3950W

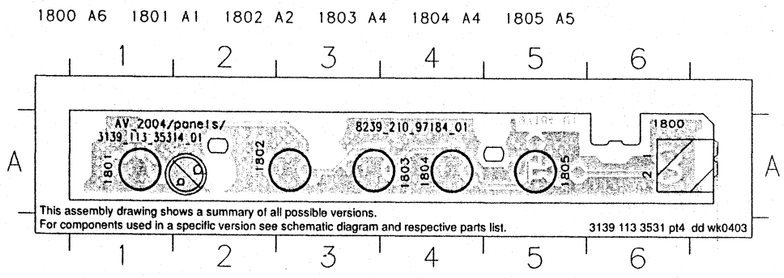
: Provision

Note : Some values may varies, see respective parts list for correct value.

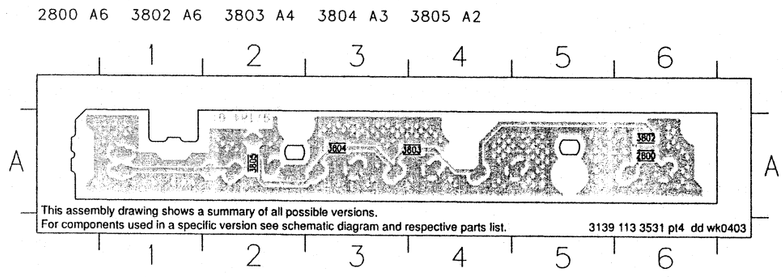


1700	A1	6712	E11
1701	A4	6713	F12
1702	A11	6714	F12
1703	D12	6715	F12
1704	D12	6716	F12
1706	C3	6717	F12
1711	D1	6718	F13
1712	E2	6719	F13
1713	F3	7700	A5
1716	B1	7701	D6
1717	B1	7702	D9
2701	A4	7703	F7
2702	A6	7704	F8
2703	A4	7705	F6
2704	C6	7706	H11
2705	B1	7707	G6
2706	D3	7708	G8
2707	D3	7709	H11
2708	D6	7710	H12
2709	D6	7711	G4
2710	D3	7712	G7
2711	D3	7713	H1
2713	D6		
2714	C9		
2715	C10		
2716	G11		
2717	G11		
2719	H12		
2720	H11		
2721	G2		
2722	G2		
2724	H10		
2725	E3		
2726	H2		
2727	C7		
2728	C7		
2729	E7		
2730	E8		
2731	E8		
2732	B2		
2733	C3		
3700	A2		
3701	B3		
3702	C2		
3703	C3		
3704	B3		
3705	B8		
3706	B11		
3707	C8		
3708	C11		
3709	C6		
3710	D7		
3711	D6		
3712	D2		
3713	D6		
3714	E7		
3715	E7		
3716	E7		
3717	E6		
3718	E6		
3719	D9		
3720	E6		
3721	F6		
3722	F4		
3723	F6		
3724	F4		
3725	F6		
3726	G12		
3727	H11		
3728	H12		
3729	H12		
3730	G6		
3731	G2		
3732	H10		
3733	H10		
3734	G6		
3735	G3		
3736	H12		
3737	G6		
3738	H3		
3739	H4		
3740	H3		
3741	H7		
3742	H7		
3743	H8		
3744	H2		
3747	B6		
3748	B7		
3749	B7		
3750	C6		
3751	C6		
4700	F3		
4701	F3		
4702	F3		
6700	D6		
6701	D3		
6702	C9		
6703	G9		
6704	G9		
6705	H7		
6706	H8		
6707	H8		
6708	H3		
6709	E11		
6710	E11		
6711	E11		

KEY BOARD - COMPONENT LAYOUT

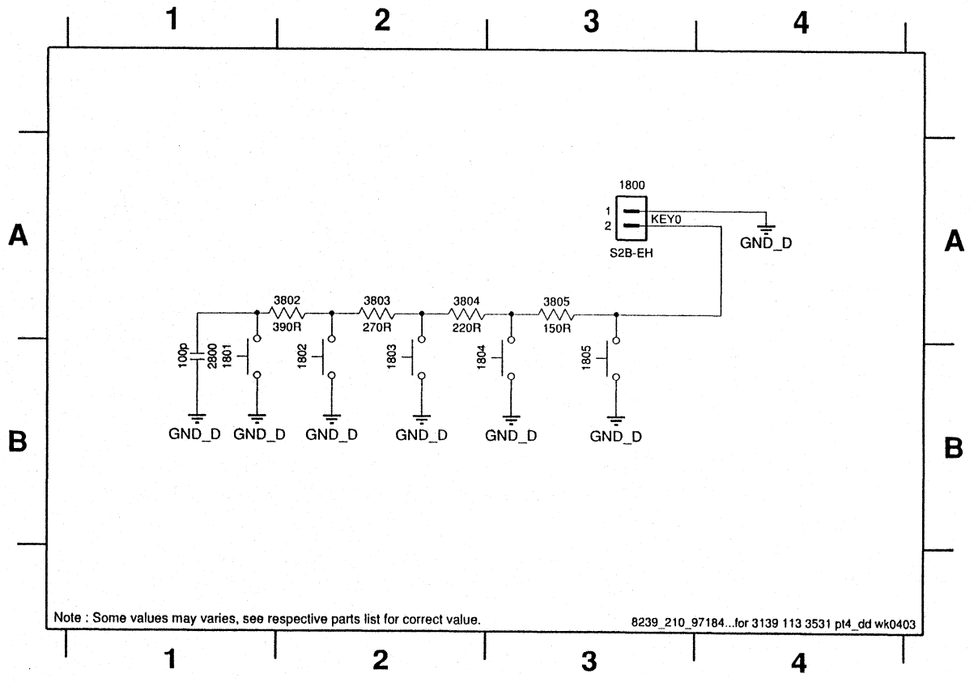

1800 A6 1801 A1 1802 A2 1803 A4 1804 A4 1805 A5
AV_2004/panels/
3139_113_35314_01
8239_210_97184_01
1800
This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram and respective parts list.
3139 113 3531 pt4 dd wk0403

KEY BOARD - CHIP LAYOUT

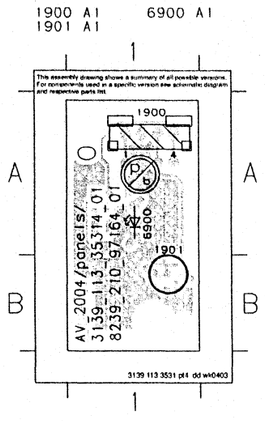

2800 A6 3802 A6 3803 A4 3804 A3 3805 A2
This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram and respective parts list.
3139 113 3531 pt4 dd wk0403

KEY BOARD - CIRCUIT DIAGRAM

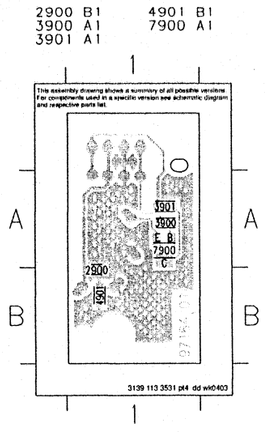
1800 A3 1801 B1 1802 B2 1803 B2 1804 B2 1805 B3 2800 B1 3802 A2 3803 A2 3804 A2 3805 A3



STANDBY BOARD - COMPONENT LAYOUT

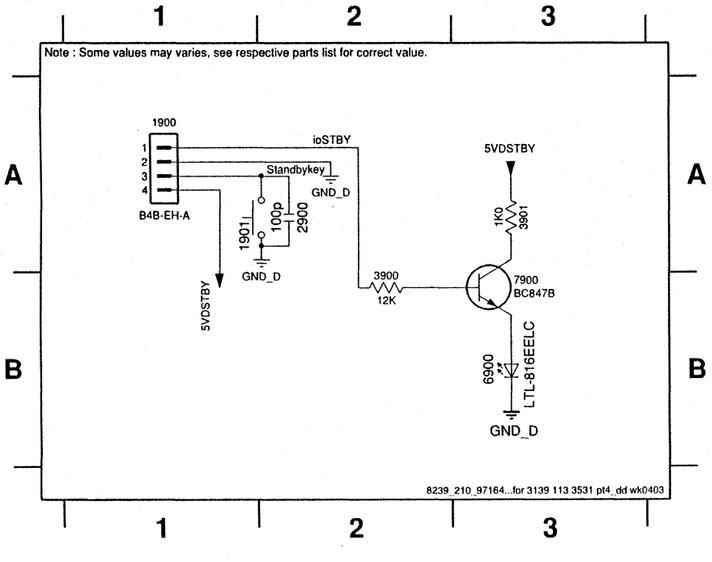


STANDBY BOARD - CHIP LAYOUT



STANDBY BOARD - CIRCUIT DIAGRAM

1900 A1 1901 A1 2900 A2 3900 B2 3901 A3 6900 B3 7900 B3



ELECTRICAL PARTS LIST - FRONT BOARD

MISCELLANEOUS

1701	2422 540 98518	RES CER 8MHz
1702	3139 111 04131	FTD HUV-08SS57T
1702	3139 240 50731	FTD 20U26115TAN
1706	4822 276 13775	Tact Switch
1712	2422 025 16586	Flex Connector 9P
1713	2422 129 16975	Rotary Encoder 12P
1801	4822 276 13775	Tact Switch
1802	4822 276 13775	Tact Switch
1803	4822 276 13775	Tact Switch
1804	4822 276 13775	Tact Switch
1805	4822 276 13775	Tact Switch
1901	4822 276 13775	Tact Switch

CAPACITORS

2701	4822 122 33752	15pF 5% 50V
2702	3198 016 31020	1nF 25V
2703	4822 122 33752	15pF 5% 50V
2704	5322 126 11583	10nF 10% 50V
2705	4822 126 14585	100nF 10% 50V
2706	4822 124 40433	47uF 20% 25V
2707	2238 586 59812	100nF +80/-20% 50V
2708	2238 586 59812	100nF +80/-20% 50V
2709	5322 126 11583	10nF 10% 50V
2710	4822 124 40433	47uF 20% 25V
2711	2238 586 59812	100nF +80/-20% 50V
2713	5322 126 11583	10nF 10% 50V
2714	2238 586 59812	100nF +80/-20% 50V
2715	3198 028 44790	47uF 20% 35V
2716	4822 126 14549	33nF 16V
2717	4822 124 12233	47uF 20% 25V
2719	4822 122 33761	22pF 5% 50V
2720	3198 028 41090	10uF 20% 35V
2721	2238 586 59812	100nF +80/-20% 50V
2722	2020 552 96305	4,7uF +80/-20% 10V
2724	3198 028 41090	10uF 20% 35V
2725	2238 916 15641	22nF 10% 25V
2726	4822 126 14238	2,2nF 50V
2732	2238 586 59812	100nF +80/-20% 50V
2733	2238 586 59812	100nF +80/-20% 50V
2800	2020 552 94427	100pF 5% 50V
2900	2020 552 94427	100pF 5% 50V

RESISTORS

3700	4822 051 30272	2k7 5% 0,062W
3701	4822 051 30272	2k7 5% 0,062W
3702	4822 051 30102	1k 5% 0,062W
3703	4822 051 30471	470R 5% 0,062W
3704	4822 051 30272	2k7 5% 0,062W
3705	4822 051 30339	33R 5% 0,062W
3706	4822 051 30339	33R 5% 0,062W
3707	4822 051 30339	33R 5% 0,062W
3708	4822 051 30339	33R 5% 0,062W
3709	4822 051 30102	1k 5% 0,062W
3710	4822 117 12925	47k 1% 0,063W
3711	4822 051 30684	680k 5% 0,062W
3712	4822 117 11152	⚠ 4R7 5%
3713	4822 117 10837	100k 1% 0,1W
3714	4822 051 30103	10k 5% 0,062W
3715	4822 051 30103	10k 5% 0,062W
3716	4822 051 30103	10k 5% 0,062W
3717	4822 051 30101	100R 5% 0,062W
3718	4822 051 30101	100R 5% 0,062W
3719	4822 051 30103	10k 5% 0,062W
3720	4822 051 30101	100R 5% 0,062W
3721	4822 051 30472	4k7 5% 0,062W
3722	4822 051 30103	10k 5% 0,062W
3723	4822 051 30472	4k7 5% 0,062W
3724	4822 051 30103	10k 5% 0,062W
3725	4822 051 30472	4k7 5% 0,062W
3726	4822 051 30472	4k7 5% 0,062W
3727	4822 051 30331	330R 5% 0,062W
3728	4822 051 30331	330R 5% 0,062W
3729	4822 051 30472	4k7 5% 0,062W
3730	4822 051 30472	4k7 5% 0,062W
3731	4822 051 30101	100R 5% 0,062W
3732	4822 051 30471	470R 5% 0,062W
3733	4822 051 30471	470R 5% 0,062W
3734	4822 051 30472	4k7 5% 0,062W
3735	4822 117 11817	1k2 1% 1/16W
3736	4822 051 30103	10k 5% 0,062W
3737	4822 051 30472	4k7 5% 0,062W
3738	4822 051 30103	10k 5% 0,062W
3739	4822 051 30103	10k 5% 0,062W
3740	4822 117 12925	47k 1% 0,063W
3741	4822 051 30472	4k7 5% 0,062W
3742	4822 051 30472	4k7 5% 0,062W
3743	4822 051 30472	4k7 5% 0,062W
3744	4822 051 30102	1k 5% 0,062W
3747	4822 051 30472	4k7 5% 0,062W
3750	4822 051 30102	1k 5% 0,062W
3751	4822 051 30472	4k7 5% 0,062W
3802	4822 051 30391	390R 5% 0,062W
3803	4822 051 30271	270R 5% 0,062W
3804	4822 051 30221	220R 5% 0,062W
3805	4822 051 30151	150R 5% 0,062W
3900	4822 051 30123	12k 5% 0,062W
3901	4822 051 10102	1k 2% 0,25W
4700	4822 051 30008	0R Jumper 0603
4701	4822 051 30008	0R Jumper 0603
4705	4822 051 30008	0R Jumper 0603
4706	4822 051 30008	0R Jumper 0603
4901	4822 051 20008	0R Jumper 0805

DIODES

6700	4822 130 30621	1N4148
6701	3198 020 55680	PDZ5.6B

6-6

ELECTRICAL PARTS LIST - FRONT BOARD

DIODES

6702	9340 548 54115	PDZ6.2B
6703	4822 130 30621	1N4148
6704	4822 130 30621	1N4148
6705	4822 130 34173	BZX79-C5V6
6706	4822 130 34173	BZX79-C5V6
6707	4822 130 34173	BZX79-C5V6
6708	3198 020 55680	PDZ5.6B
6709	4822 130 11397	BAS316
6710	4822 130 11397	BAS316
6711	4822 130 11397	BAS316
6712	4822 130 11397	BAS316
6713	4822 130 11397	BAS316
6714	4822 130 11397	BAS316
6715	4822 130 11397	BAS316
6716	4822 130 11397	BAS316
6717	4822 130 11397	BAS316
6718	4822 130 11397	BAS316
6719	4822 130 11397	BAS316
6900	9322 179 76676	LED VS LTL-816EELC

TRANSISTORS & INTEGRATED CIRCUITS

7700	3139 110 53731	TMP87C809BM - 'LX3900S53731'
7701	5322 130 60159	BC847B
7702	9322 202 26671	IC SM UPD16311GC-AB6
7703	4822 130 60373	BC857B
7704	4822 130 60373	BC857B
7705	4822 130 60373	BC857B
7706	4822 130 42804	BC817-25
7707	4822 130 60373	BC857B
7708	4822 130 60373	BC857B
7709	4822 130 60373	BC857B
7710	5322 130 60159	BC847B
7711	5322 130 60159	BC847B
7712	4822 130 60373	BC857B
7713	9322 185 95667	IR RECEIVER TSOP4836ZC1
7900	5322 130 60159	BC847B

Note : Only the parts mentioned in this list are normal service spare parts.

AV BOARD

TABLE OF CONTENTS

Brief Introduction of the AV Board 7-1
Top View Layout 7-2
Top & Bottom View Layout (Mapping) 7-3
Bottom View Layout 7-4
Circuit Diagram (Part 1) 7-5
Circuit Diagram (Part 2) 7-6
Circuit Diagram (Part 3) 7-7
Circuit Diagram (Part 4) 7-8
Circuit Diagram (Part 5) 7-9
Circuit Diagram (Part 6) 7-10
Electrical parts list 7-11

BRIEF INTRODUCTION OF THE AV BOARD

The AV Board consists of the following features :

a. IC CS42418
IC CS42418 which includes functions such as ADC and DAC, sound control, volume control and muting function.
Sound features such as DSC are controllable via I²C Bus from the SD6.1 module.

The IC caters for 2 channels analog input via a 4 stereo channels MUX HEF4052BT.
The MUX multiplexed between Aux In, TV In, Tuner and Mic In.
Input networks are included to provide appropriate attenuation for various sources.

b. SCART (for /01 and /05 versions only)
SCART input/output for audo/video (output only) connection to TV.

c. LINE OUT
Line out with cinch socket for connection to external amplifier.

d. TV IN
TV In cinch socket for connection to external TV input.

e. Y/Pb/Pr (not for /01 and /05 versions)
Y/Pb/Pr component video output with cinch socket for connection to TV.
Progressive Y/Pb/Pr is selected through RC.

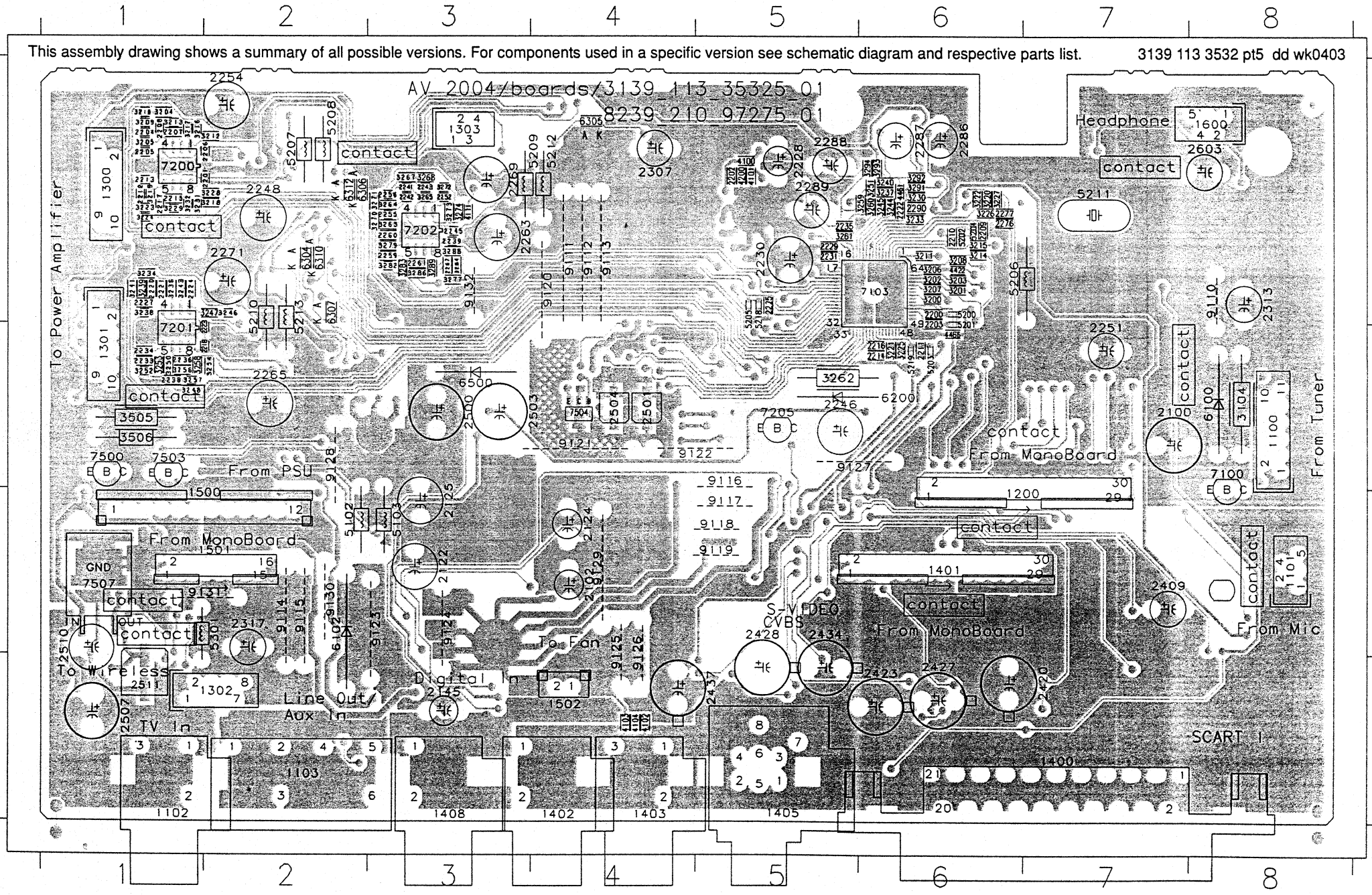
f. IC M62320FP
IC M62320FP which served as additional I/O port.

g. DIGITAL IN
Digital In with cinch socket for connection to Digital Out of other audio equipments.
The Digital In source is fed to the SD6.1 module for audio decoding.

7-2

AV BOARD - TOP VIEW LAYOUT

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list. 3139 113 3532 pt5 dd wk0403



7-3

AV BOARD - TOP VIEW LAYOUT (MAPPING)

1100 B8	1600 A8	2211 B6	2231 A5	2259 A3	2409 C7	3202 A6	3220 A6	3239 A1	3260 A6	3286 A3	4466 B6	5219 B6	7500 B1	9124 C3
1101 C8	2100 B7	2212 A1	2233 B1	2260 A3	2420 D7	3203 A6	3221 B6	3240 A6	3261 A5	3288 A3	5102 C3	5301 C1	7503 B1	9125 C4
1102 D1	2102 C4	2213 A1	2234 B1	2261 A3	2423 D6	3204 A1	3222 A6	3241 A1	3262 B5	3289 A3	5103 C3	6100 B8	7504 B4	9126 C4
1103 D2	2122 C3	2214 B6	2235 A5	2263 A3	2427 D6	3205 A1	3223 A1	3243 A1	3263 A3	3291 A6	5200 A6	6102 C2	7507 C1	9127 B5
1200 C6	2124 C4	2215 A1	2236 B1	2265 B2	2428 C5	3206 A6	3224 A1	3244 A6	3264 A3	3292 A6	5201 B6	6200 B5	9110 A8	9128 B2
1300 A1	2125 C3	2216 B6	2238 B1	2267 A3	2434 C5	3207 A6	3225 B6	3245 A6	3265 A3	3293 A6	5202 A6	6304 A2	9111 A4	9129 C4
1301 B1	2145 D3	2217 A1	2239 A3	2269 A3	2437 D5	3208 A6	3226 A6	3246 A2	3267 A3	3294 A6	5203 B6	6305 A4	9112 A4	9130 C2
1302 D2	2200 A6	2218 B2	2241 A3	2271 A2	2500 B3	3209 A1	3227 A6	3247 A2	3268 A3	3505 B1	5204 A6	6306 A2	9113 A4	9131 C2
1303 A3	2201 A2	2220 A1	2242 A3	2276 A6	2501 B4	3210 A1	3228 A2	3248 B1	3270 A3	3506 B1	5205 A5	6307 A2	9114 C2	9132 A3
1400 D7	2202 A5	2221 A1	2243 A3	2277 A6	2503 B4	3211 A6	3229 A1	3250 B1	3271 A3	4100 A5	5206 A6	6310 A2	9115 C2	
1401 C6	2203 B6	2222 A6	2245 A3	2286 A6	2504 B4	3212 A2	3230 A6	3251 A6	3272 A3	4101 A5	5207 A2	6312 A2	9116 C5	
1402 D4	2204 A1	2223 B2	2246 B5	2287 A6	2507 D1	3213 A1	3231 A1	3252 B1	3273 A3	4102 D4	5208 A2	6500 B3	9117 C5	
1403 D4	2205 A1	2224 A1	2248 A2	2288 A5	2510 C1	3214 A6	3232 A1	3253 B1	3274 A3	4103 D4	5209 A3	7100 B8	9118 C5	
1405 D5	2206 A2	2225 A5	2251 B7	2289 A5	2511 D1	3215 A6	3233 A6	3254 B2	3277 A3	4104 D4	5210 A2	7103 A6	9119 C5	
1408 D3	2207 A1	2227 A1	2252 A3	2290 A6	2603 A8	3216 A1	3234 A1	3256 B1	3279 A3	4111 A3	5211 A7	7200 A1	9120 A4	
1500 C2	2208 A1	2228 A5	2254 A2	2307 A4	3104 B8	3217 A1	3236 A1	3257 B1	3282 A3	4200 A5	5212 A3	7201 B1	9121 B4	
1501 C2	2209 A6	2229 A5	2255 A3	2313 A8	3200 A6	3218 A2	3237 A6	3258 B1	3283 A3	4422 A6	5213 A2	7202 A3	9122 B4	
1502 D4	2210 A6	2230 A5	2256 A3	2317 C2	3201 A6	3219 A1	3238 A1	3259 A6	3284 A3	4461 A6	5218 A5	7205 B5	9123 C3	

AV BOARD - BOTTOM VIEW LAYOUT (MAPPING)

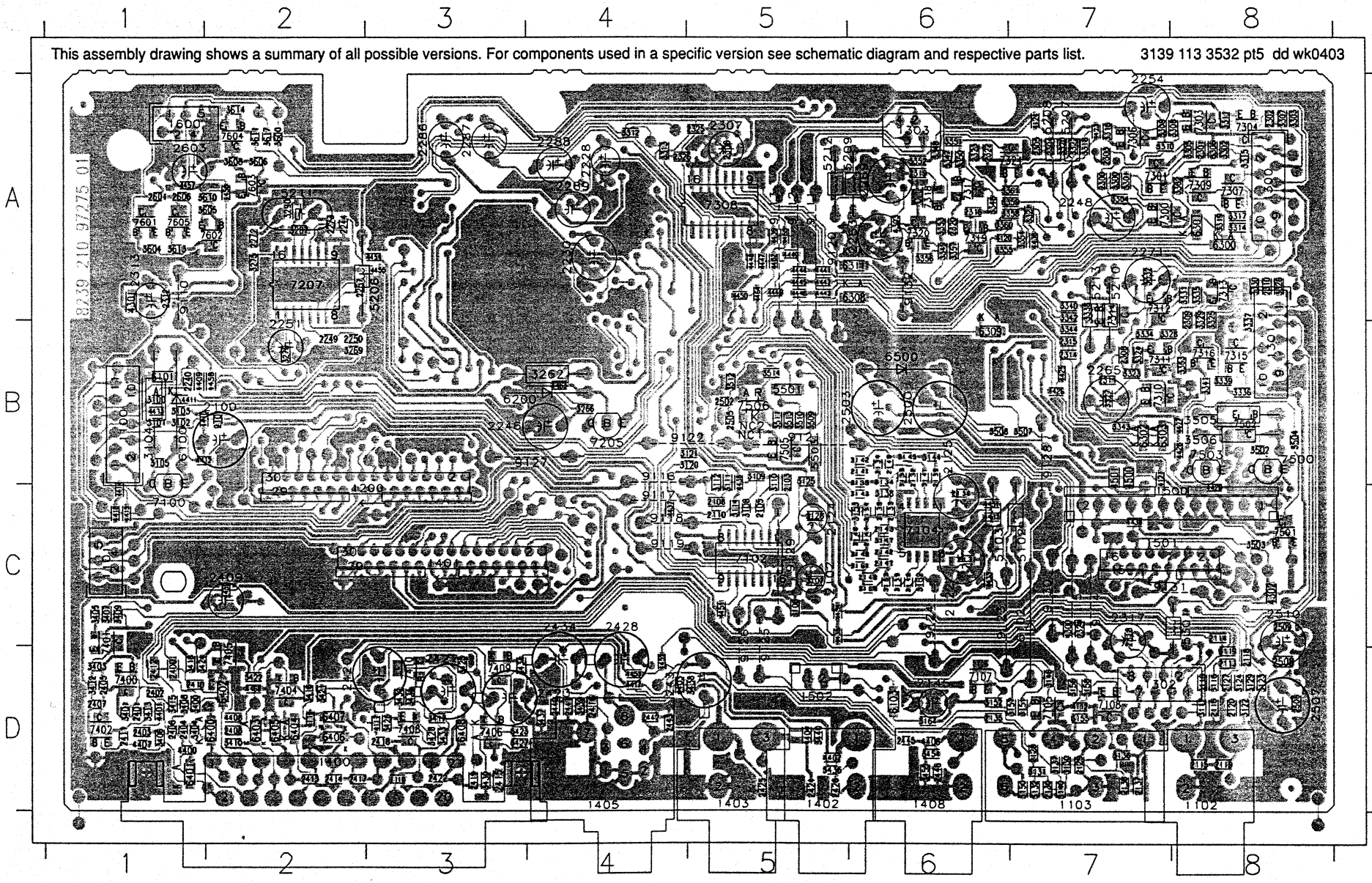
2101 B2	2143 C6	2319 A6	2425 D5	3116 D8	3146 D7	3303 A8	3331 A8	3361 A7	3432 D3	3611 A2	4415 C1	4448 A5	6309 B6	7313 A8
2103 B5	2144 C6	2320 A6	2426 D5	3117 D8	3147 C6	3304 A7	3332 A7	3362 A8	3433 D3	3613 A1	4416 C1	4449 A5	6311 A6	7314 A7
2105 C5	2146 C6	2322 A6	2440 D4	3118 D8	3148 C6	3305 A8	3334 B7	3363 B8	3434 D3	3614 A2	4417 D4	4450 A5	6400 D2	7315 B8
2108 C5	2147 C6	2323 A6	2441 D4	3119 D8	3149 C6	3306 A8	3335 A8	3400 D1	3435 D3	3617 A2	4423 A7	4451 C5	6401 D1	7316 B8
2110 C5	2148 C6	2324 C7	2442 D4	3120 B5	3150 D7	3307 A8	3336 B8	3401 D1	3436 D5	4112 D7	4424 A7	4452 D4	6402 D2	7317 A6
2113 D8	2240 B1	2325 A5	2443 D4	3121 B5	3151 D7	3308 A8	3337 B8	3403 D1	3437 D4	4116 D3	4425 B7	4453 D4	6403 D2	7318 A6
2114 C8	2244 A2	2326 A4	2445 D6	3122 D8	3152 D6	3309 A7	3338 A7	3404 D1	3438 D5	4117 D3	4426 B7	4454 A3	6404 D2	7319 A6
2115 D8	2249 B2	2400 D1	2446 D6	3123 D8	3153 C6	3310 A7	3339 B8	3405 C1	3439 D4	4119 D2	4427 B8	4455 A3	6405 D2	7320 A6
2116 D8	2250 B2	2401 D1	2502 B5	3124 D8	3154 C6	3311 A8	3340 A7	3406 D1	3440 D5	4120 A6	4428 B8	4456 A2	6406 D2	7321 A7
2118 D8	2257 A2	2402 D1	2505 B5	3125 B5	3155 D7	3312 A4	3341 B8	3407 C1	3454 D6	4121 B7	4429 C8	4457 A1	6407 D2	7400 D1
2119 D8	2272 A2	2403 D1	2506 D8	3128 C5	3156 D7	3313 A4	3342 A7	3408 D1	3455 D6	4300 C7	4430 C7	4458 B2	6408 D3	7401 C1
2120 D8	2273 A2	2404 D1	2508 D8	3129 D8	3157 D7	3314 A8	3343 B7	3409 C1	3502 B8	4301 A1	4431 C6	4459 C2	7102 C5	7402 D1
2127 D8	2300 A7	2405 D1	2509 C8	3130 D7	3158 D7	3315 A8	3344 B7	3410 D2	3503 C8	4302 C8	4432 C6	4460 D2	7104 C6	7404 D2
2128 D7	2301 A8	2406 D1	2601 A1	3131 D7	3159 C6	3316 A7	3346 A6	3412 D1	3504 B8	4303 A6	4433 C6	4462 A5	7105 D7	7405 D2
2129 D7	2302 A8	2407 D1	2606 A1	3132 D7	3160 C6	3317 A8	3347 A6	3413 D1	3507 B7	4400 D1	4434 C5	4463 B4	7107 D6	7406 D3
2130 D7	2303 A7	2408 D2	3100 B1	3133 B6	3161 C6	3318 A7	3348 A6	3415 D1	3508 B6	4401 D1	4435 C5	4464 A5	7108 D7	7408 D3
2131 C6	2304 A7	2410 D1	3101 B1	3134 B6	3162 C6	3319 A8	3349 A6	3416 D2	3509 B5	4402 D5	4436 B5	4465 A5	7207 A2	7409 D3
2132 B6	2305 A7	2411 D1	3102 B1	3135 B6	3163 C6	3320 A7	3350 A6	3417 D3	3510 B5	4403 D4	4437 C4	4500 B7	7300 A7	7410 D3
2133 C6	2306 A5	2412 D1	3103 B1	3136 D7	3164 D6	3321 A7	3351 A6	3418 D1	3511 B5	4404 D5	4438 A7	4501 B7	7301 A7	7501 C8
2134 B6	2308 B7	2413 D2	3105 B1	3137 D7	3266 B4	3322 A7	3352 A6	3421 D2	3512 B5	4406 D6	4439 A5	5501 B5	7303 A8	7502 B8
2135 D6	2309 A8	2414 D2	3106 C5	3138 C6	3269 B2	3323 B7	3353 A6	3422 D2	3513 B5	4407 D1	4440 A5	5503 B5	7304 A8	7505 B5
2136 C6	2310 A8	2415 D3	3107 C5	3139 C6	3275 A2	3324 B7	3354 A7	3423 D3	3514 B5	4408 D2	4441 A5	6101 B1	7306 A7	7506 B5
2137 D7	2311 B7	2416 D4	3108 C5	3140 D7	3276 B2	3325 A8	3355 A6	3424 D1	3600 A2	4409 B1	4442 A5	6103 D6	7307 A8	7601 A1
2138 D7	2312 A1	2417 D2	3109 B5	3141 B6	3287 A2	3326 A8	3356 A6	3425 D3	3604 A1	4410 B1	4443 A5	6300 A8	7308 A5	7602 A2
2139 B6	2314 B7	2418 D3	3110 B5	3142 B6	3290 A2	3327 B7	3357 A6	3426 D3	3605 A2	4411 B1	4444 A5	6301 A8	7309 A8	7603 A2
2140 B6	2315 B7	2419 D3	3111 B5	3143 C6	3300 A7	3328 B7	3358 A7	3427 D3	3606 A2	4412 B1	4445 A5	6302 B7	7310 B7	7604 A2
2141 B6	2316 A6	2422 D3	3112 B5	3144 B6	3301 A7	3329 A8	3359 A7	3428 D3	3608 A2	4413 B1	4446 A5	6303 B7	7311 B7	7605 A1
2142 C6	2318 C7	2424 D5	3114 C5	3145 B6	3302 A8	3330 A8	3360 A6	3430 D3	3610 A2	4414 C1	4447 A5	6308 A6	7312 A7	

1100 B1	1302 D7	1408 D6	2122 C6	2248 A7	2286 A3	2409 C2	2500 B6	3505 B8	5209 A6	6102 C7	9110 A1	9117 C4	9124 C6	9131 C7
1101 C1	1303 A6	1500 C7	2124 C5	2251 B2	2287 A3	2420 D2	2503 B5	3506 B8	5210 A7	6200 B4	9111 A5	9118 C4	9125 C5	9132 A6
1102 D8	1400 D2	1501 C7	2125 C6	2254 A7	2288 A4	2423 D3	2507 D8	5102 C6	5211 A2	6500 B6	9112 A5	9119 C4	9126 C5	
1103 D7	1401 C3	1502 D5	2145 D6	2263 A6	2289 A4	2427 D3	2510 C8	5103 C6	5212 A6	7100 B1	9113 A5	9120 A5	9127 B4	
1200 C3	1402 D5	1600 A1	2228 A4	2265 B7	2307 A5	2428 C4	2603 A1	5206 A3	5213 A7	7205 B4	9114 C7	9121 B5	9128 B7	
1300 A8	1403 D5	2100 B2	2230 A4	2269 A6	2313 A1	2434 C4	3104 B1	5207 A7	5301 C8	7500 B8	9115 C7	9122 B4	9129 C5	
1301 B8	1405 D4	2102 C5	2246 B4	2271 A7	2317 C7	2437 D4	3262 B4	5208 A7	6100 B1	7503 B8	9116 C4	9123 C6	9130 C7	

7-4

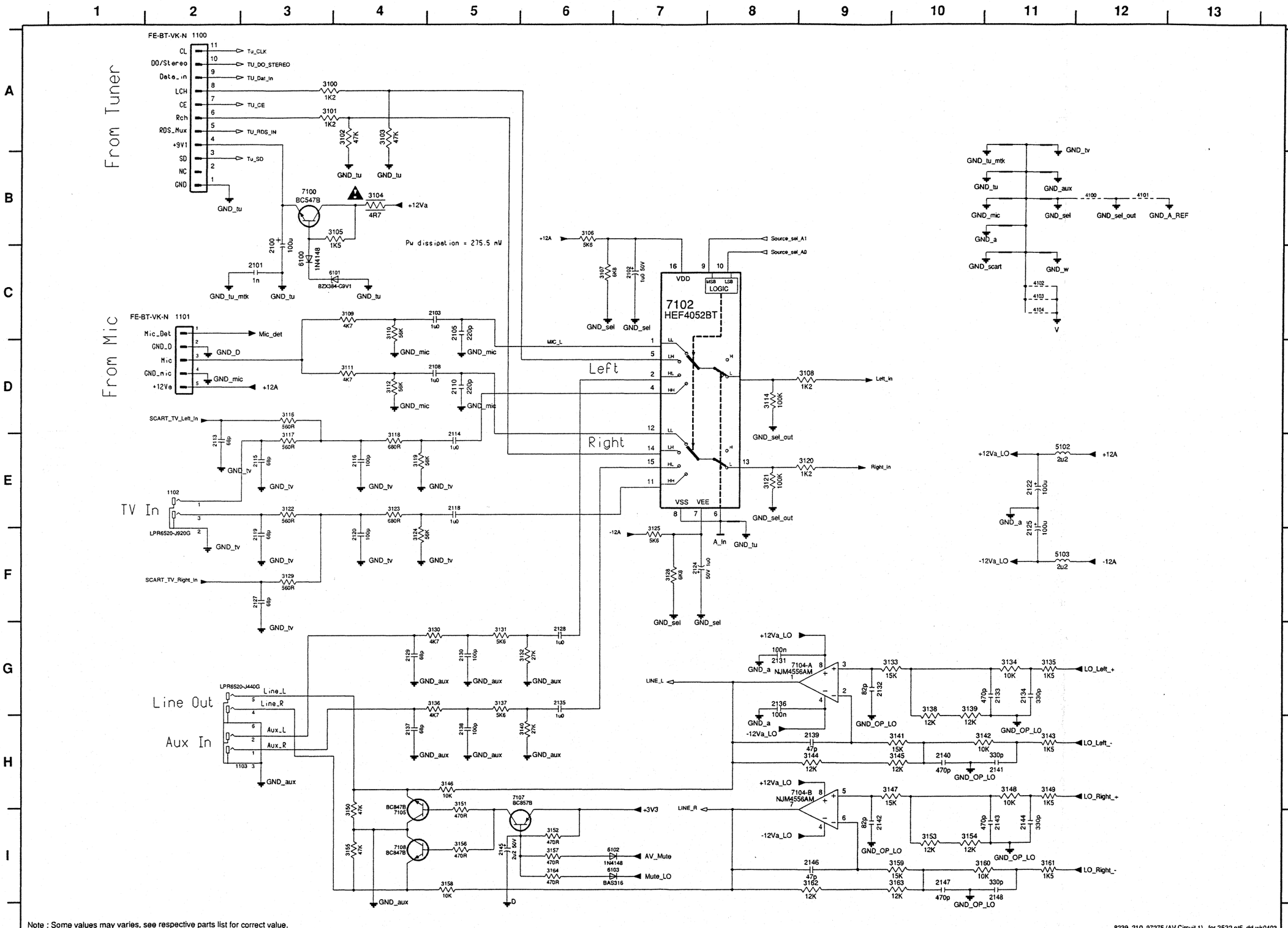
AV BOARD - BOTTOM VIEW LAYOUT

This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram and respective parts list. 3139 113 3532 pt5 dd wk0403



7-5

AV BOARD - CIRCUIT DIAGRAM (PART 1)



Note : Some values may varies, see respective parts list for correct value.

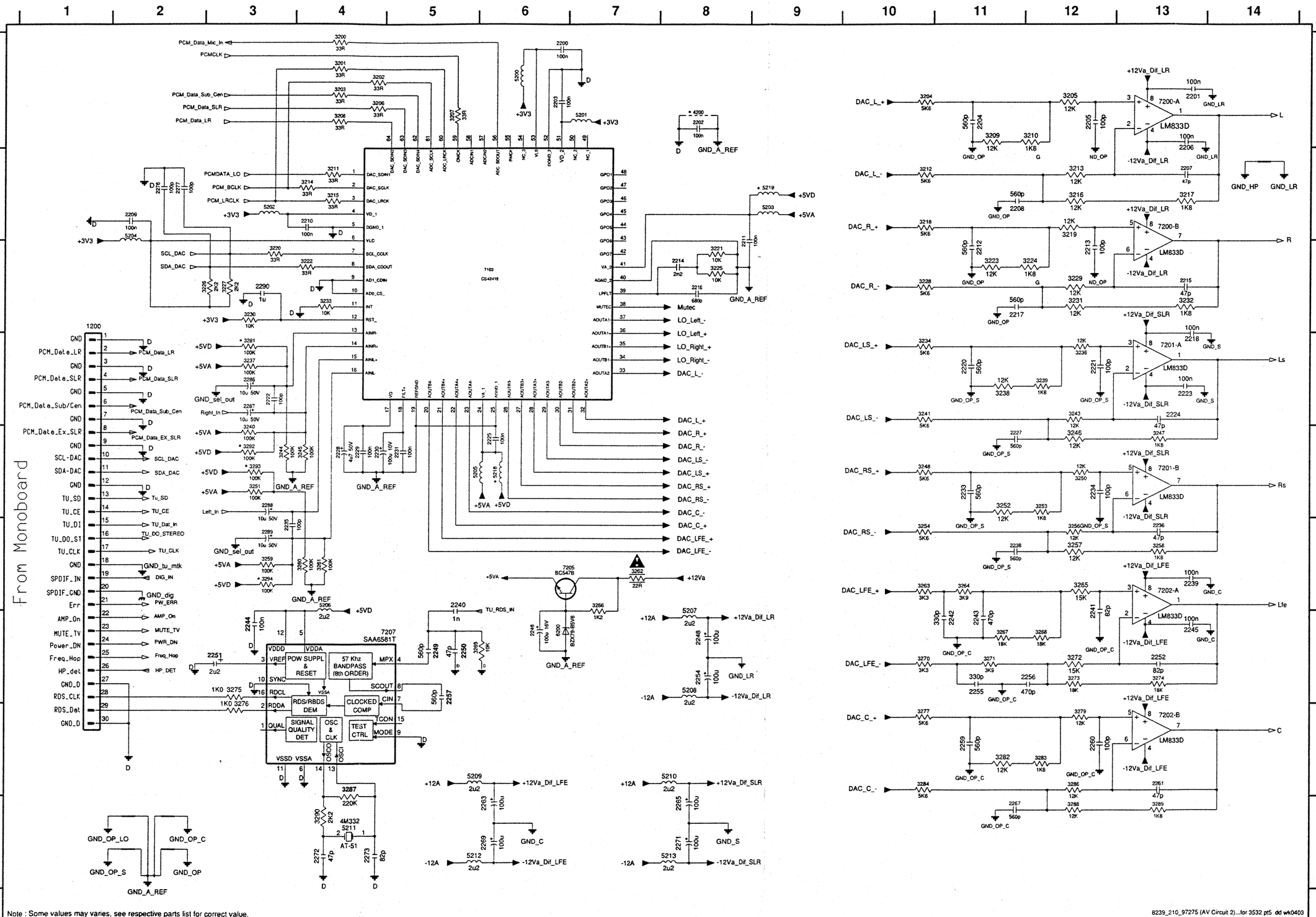
8239_210_97275 (AV Circuit 1)...for 3532 pt5 dd wk0403

1100 A2
1101 C2
1102 E2
1103 H3
2100 C3
2101 C3
2102 C7
2103 C5
2105 C5
2108 D5
2110 D5
2113 E2
2114 E5
2115 E3
2116 E4
2118 E5
2119 F3
2120 F4
2122 E11
2124 F7
2125 F11
2127 F3
2128 G6
2129 G4
2130 G5
2131 G8
2132 G9
2133 G11
2134 G11
2135 G6
2136 G8
2137 H4
2138 H5
2139 H9
2140 H10
2141 H11
2142 I9
2143 I11
2144 I11
2145 I5
2146 I9
2147 I10
2148 I11
3100 A3
3101 A3
3102 A4
3103 A4
3104 B4
3105 B4
3106 B6
3107 C6
3108 D9
3109 C4
3110 C4
3111 D4
3112 D4
3114 D8
3116 D3
3117 E3
3118 E4
3119 E4
3120 E9
3121 E8
3122 E3
3123 E4
3124 F4
3125 F7
3128 F7
3129 F3
3130 G5
3131 G5
3132 G6
3133 G10
3134 G11
3135 G11
3136 G5
3137 G5
3138 G10
3139 G10
3140 H6
3141 H10
3142 H11
3143 H11
3144 H9
3145 H10
3146 H5
3147 H10
3148 H11
3149 H11
3150 I4
3151 H5
3152 I6
3153 I10
3154 I10
3155 I4
3156 I5
3157 I6
3158 I5
3159 I10
3160 I11
3161 I11
3162 I9
3163 I10
3164 I6
4100 B12
4101 B12
4102 C11
4103 C11
4104 C11
5102 E11
5103 F11
6100 C3
6101 C4
6102 I7
6103 I7

7100 B3
7102 C7
7104-A G9
7104-B H9
7105 I4
7107 H5
7108 I4

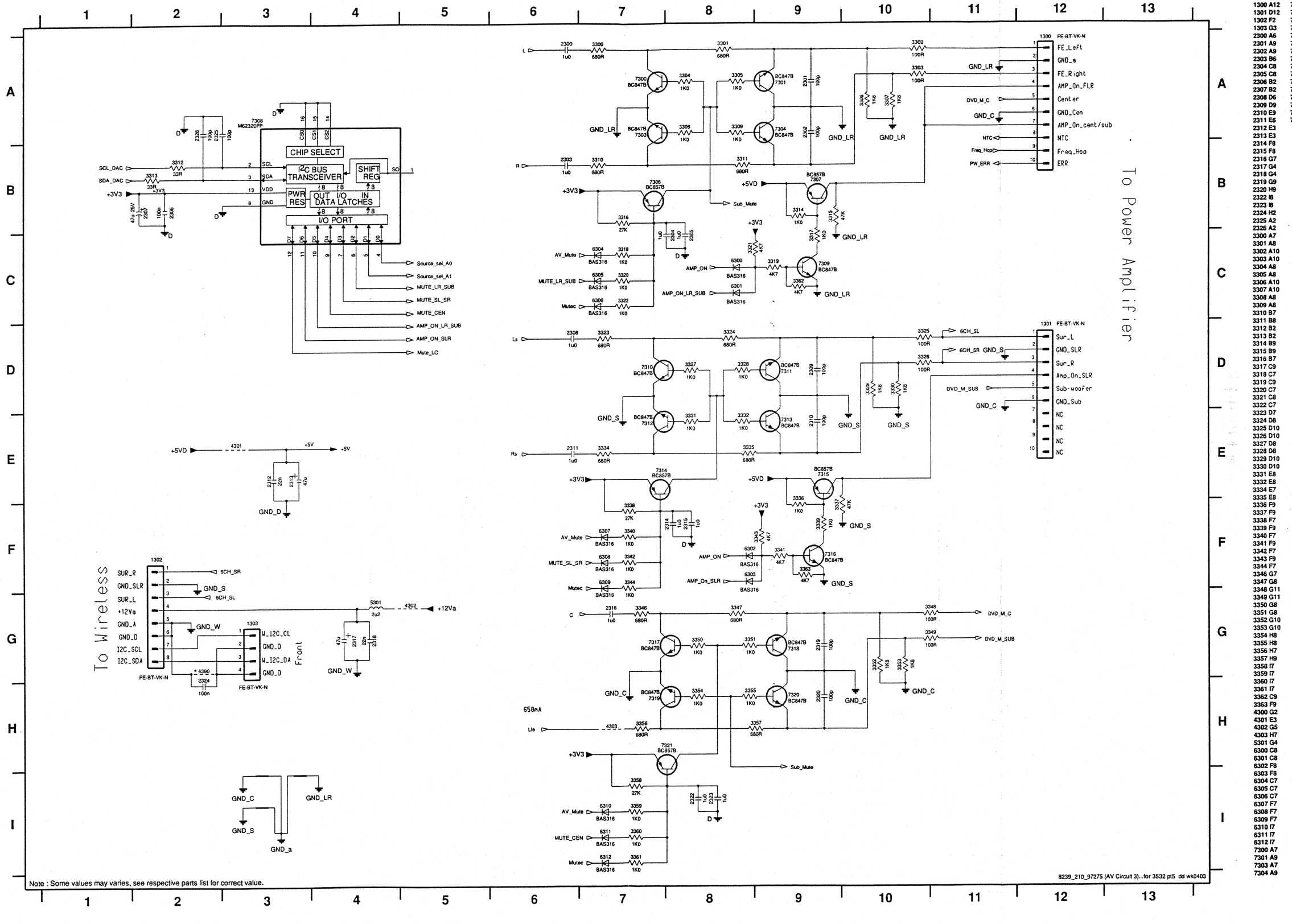
7-6

AV BOARD - CIRCUIT DIAGRAM (PART 2)



1200 C1	3247 E13	
2200 A6	3248 E10	
2201 A13	3250 E12	
2202 A8	3251 E3	
2203 A6	3252 E11	
2204 A11	3253 E12	
2205 A12	3254 F10	
2206 A13	3256 F12	
2207 B13	3257 F12	
2208 B11	3258 F13	
2209 B2	3259 F3	
2210 B4	3260 F4	
2211 C8	3261 F4	
2212 C11	3262 F7	
2213 C12	3263 F10	
2214 C8	3264 F11	
2215 C13	3265 F12	
2216 C8	3266 F7	
2217 C11	3267 G11	
2218 D13	3268 G12	
2220 D11	3269 G5	
2221 D12	3270 G10	
2222 D3	3271 G11	
2223 D13	3272 G12	
2224 D13	3273 G12	
2225 E6	3274 G13	
2227 E11	3275 G3	
2228 E4	3276 G3	
2229 E4	3277 H10	
2230 E4	3279 H12	
2231 E5	3282 H11	
2233 E11	3283 H12	
2234 E12	3284 H10	
2235 F3	3286 H12	
2236 F13	3287 H4	
2238 F11	3288 I12	
2239 F13	3289 I13	
2240 F5	3290 I4	
2241 G12	3291 D3	
2242 G11	3292 E3	
2243 G11	3293 E3	
2244 G3	3294 F3	
2245 G13	4200 A8	
2246 G6	5200 A6	
2248 G8	5201 A7	
2249 G5	5202 B3	
2250 G5	5203 B9	
2251 G3	5204 B2	
2252 G13	5205 E5	
2254 G8	5206 F4	
2255 G11	5207 G8	
2256 G12	5208 G8	
2257 G5	5209 H5	
2259 H11	5210 H8	
2260 H12	5211 I4	
2261 H13	5212 I5	
2263 I6	5213 I8	
2265 I8	5218 E6	
2267 I11	5219 B9	
2269 I6	5200 G6	
2271 I8	7103 C6	
2272 I4	7200-A A13	
2273 I4	7200-B B13	
2276 B2	7201-A D13	
2277 B2	7201-B E13	
2286 D3	7202-A F13	
2287 D3	7202-B H13	
2288 E3	7205 F7	
2289 F3	7207 G5	
2290 C3		
3200 A4		
3201 A4		
3202 A4		
3203 A4		
3204 A10		
3205 A12		
3206 A4		
3207 A5		
3208 A4		
3209 A11		
3210 A12		
3211 B4		
3212 B10		
3213 B12		
3214 B4		
3215 B4		
3216 B12		
3217 B13		
3218 B10		
3219 B12		
3220 C3		
3221 C8		
3222 C4		
3223 C11		
3224 C12		
3225 C8		
3226 C3		
3227 C3		
3228 C10		
3229 C12		
3230 C3		
3231 C12		
3232 C13		
3233 C4		
3234 D10		
3236 D12		
3237 D3		
3238 D11		
3239 D12		
3240 E3		
3241 D10		
3243 D12		
3245 E4		
3246 E12		

AV BOARD - CIRCUIT DIAGRAM (PART 3)



Note : Some values may varies, see respective parts list for correct value.

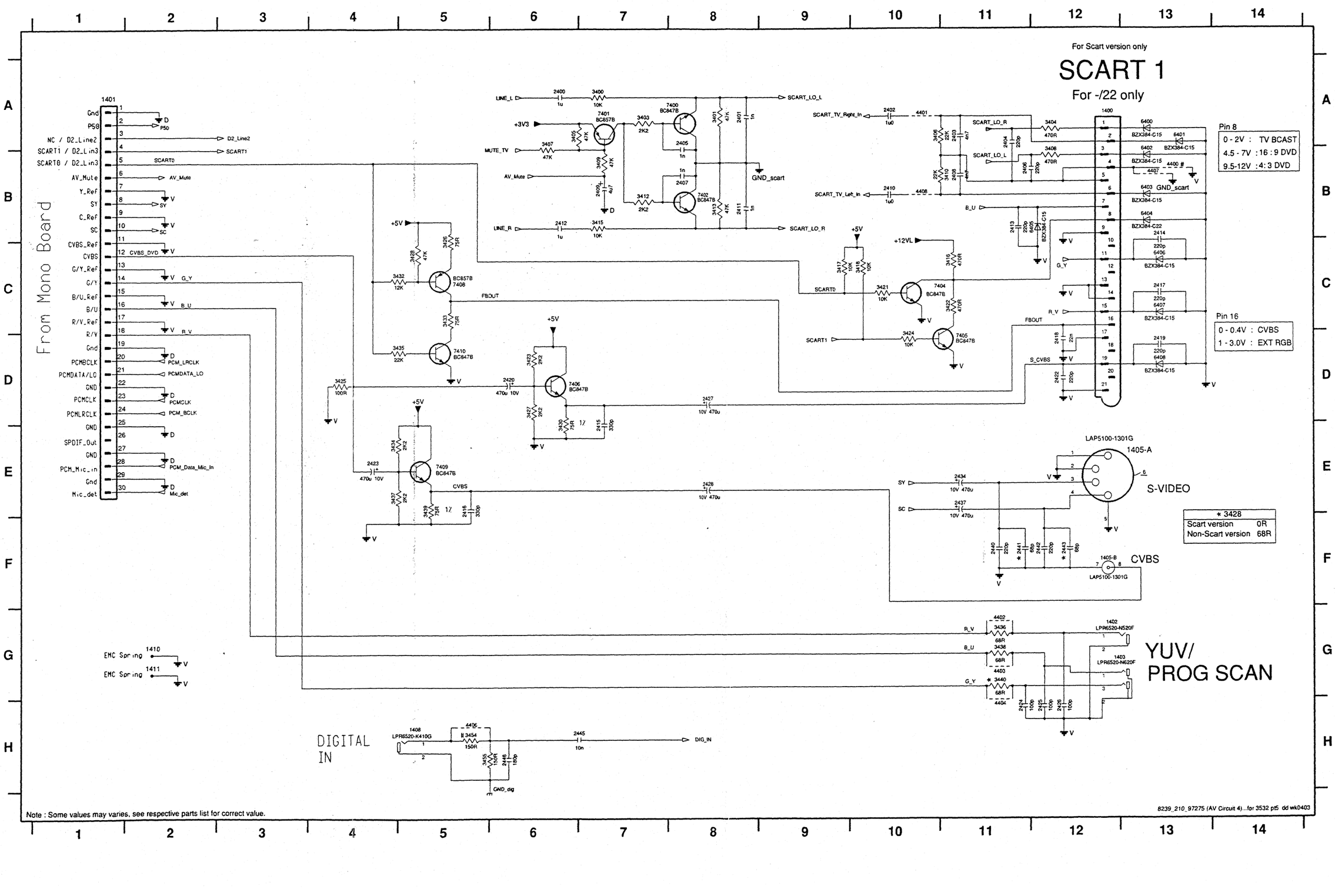
8239_210_97275 (AV Circuit 3)...for 3532 pt5 dd wk0403

1300 A12
1301 D12
1302 F2
1303 G3
2300 A6
2301 A9
2302 A9
2303 B6
2304 C8
2305 C8
2306 B2
2307 B2
2308 D6
2309 D9
2310 E9
2311 E6
2312 E3
2313 E3
2314 F8
2315 F8
2316 G7
2317 G4
2318 G4
2319 G9
2320 H9
2322 I8
2323 I8
2324 H2
2325 A2
2326 A2
3300 A7
3301 A8
3302 A10
3303 A10
3304 A8
3305 A8
3306 A10
3307 A10
3308 A8
3309 A8
3310 B7
3311 B8
3312 B2
3313 B2
3314 B9
3315 B9
3316 B7
3317 C9
3318 C7
3319 C9
3320 C7
3321 C8
3322 C7
3323 D7
3324 D8
3325 D10
3326 D10
3327 D8
3328 D8
3329 D10
3330 D10
3331 E8
3332 E8
3334 E7
3335 E8
3336 F9
3337 F9
3338 F7
3339 F9
3340 F7
3341 F9
3342 F7
3343 F9
3344 F7
3346 G7
3347 G8
3348 G11
3349 G11
3350 G8
3351 G8
3352 G10
3353 G10
3354 H8
3355 H8
3356 H7
3357 H9
3358 I7
3359 I7
3360 I7
3361 I7
3362 C9
3363 F9
4300 G2
4301 E3
4302 G5
4303 H7
5301 G4
6300 C8
6301 C8
6302 F8
6303 F8
6304 C7
6305 C7
6306 C7
6307 F7
6308 F7
6309 F7
6310 I7
6311 I7
6312 I7
7300 A7
7301 A9
7303 A7
7304 A9
7306 B7
7307 B9
7308 A3
7309 C9
7310 D7
7311 D9
7312 E7
7313 E9
7314 E8
7315 E9
7316 F9
7317 G7
7318 G9
7319 H7
7320 H9
7321 H7

7-8

AV BOARD - CIRCUIT DIAGRAM (PART 4)

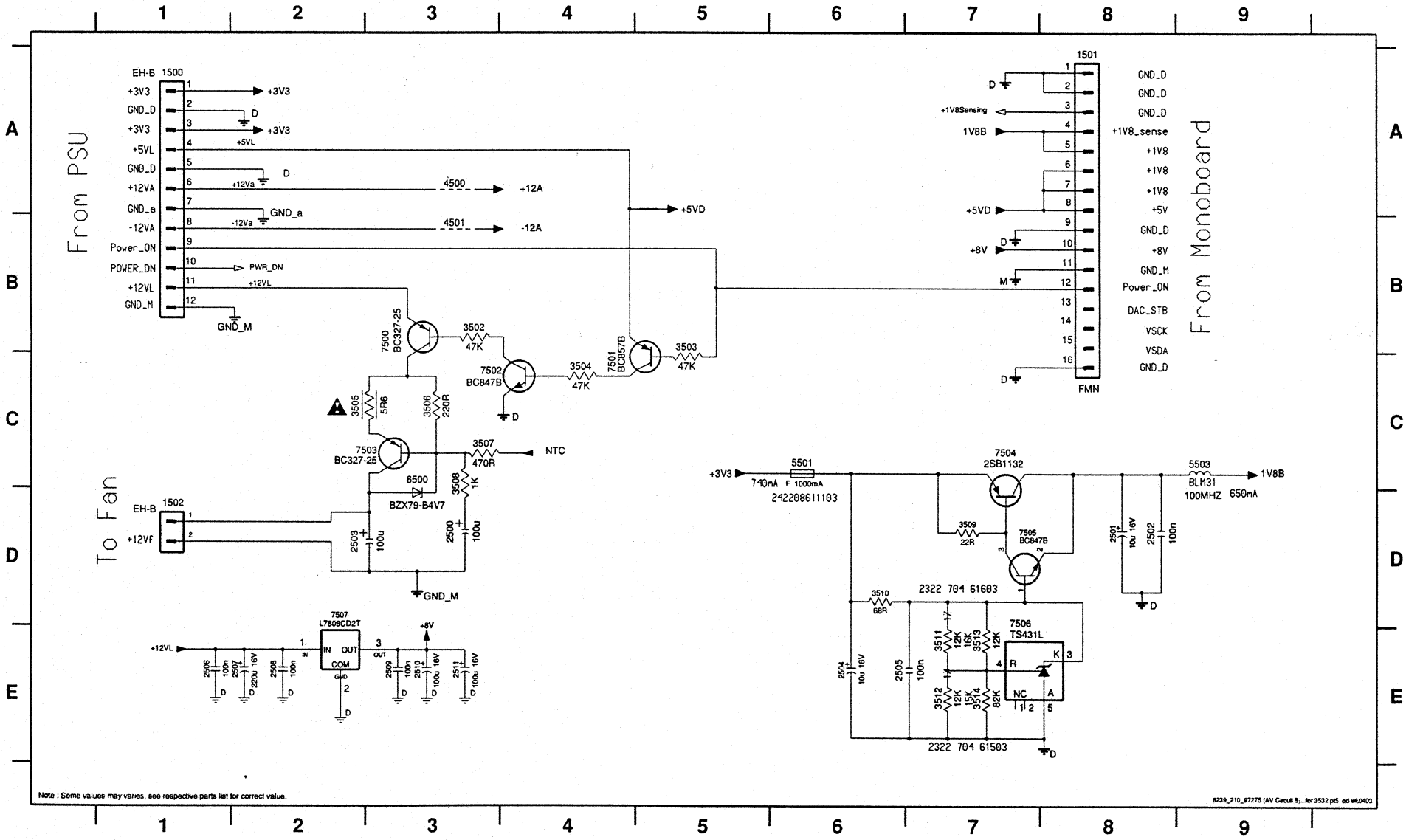
1400 A12	1405-A E13	1411 G2	2403 A11	2407 B8	2411 B8	2415 E7	2419 D13	2424 H11	2428 E8	2441 F11	2446 H6	3404 A12	3408 B12	3413 B8	3418 C10	3424 D10	3428 C5	3434 E4	3438 G11	3455 H5	4403 G11	4408 B10	6403 B13	6407 C13	7402 B8	7408 C5
1401 A1	1405-B F12	2400 A6	2404 A11	2408 B11	2412 B6	2416 E5	2420 D6	2425 H12	2434 E11	2442 F12	3400 A7	3405 A6	3409 B7	3415 B7	3421 C10	3425 D4	3430 E6	3435 D5	3439 E5	4000 B13	4404 H11	6400 A13	6404 B13	6408 D13	7404 C10	7409 E5
1402 G12	1408 H5	2401 A8	2405 A8	2409 B7	2413 B11	2417 C13	2422 D12	2426 H12	2437 E11	2443 F12	3401 A8	3406 A10	3410 B11	3416 C11	3422 C11	3426 C5	3432 C5	3436 G11	3440 G11	4401 A10	4406 H5	6401 A13	6405 B12	7400 A7	7405 D11	7410 D5
1403 G12	1410 G2	2402 A10	2406 B11	2410 B10	2414 B13	2418 D12	2423 E4	2427 D8	2440 F1	2445 H7	3403 A7	3407 A6	3412 B7	3417 C9	3423 D6	3427 D6	3433 C5	3437 E4	3454 H5	4402 G11	4407 B13	6402 B13	6406 C13	7401 A7	7406 D7	



7-9

AV BOARD - CIRCUIT DIAGRAM (PART 5)

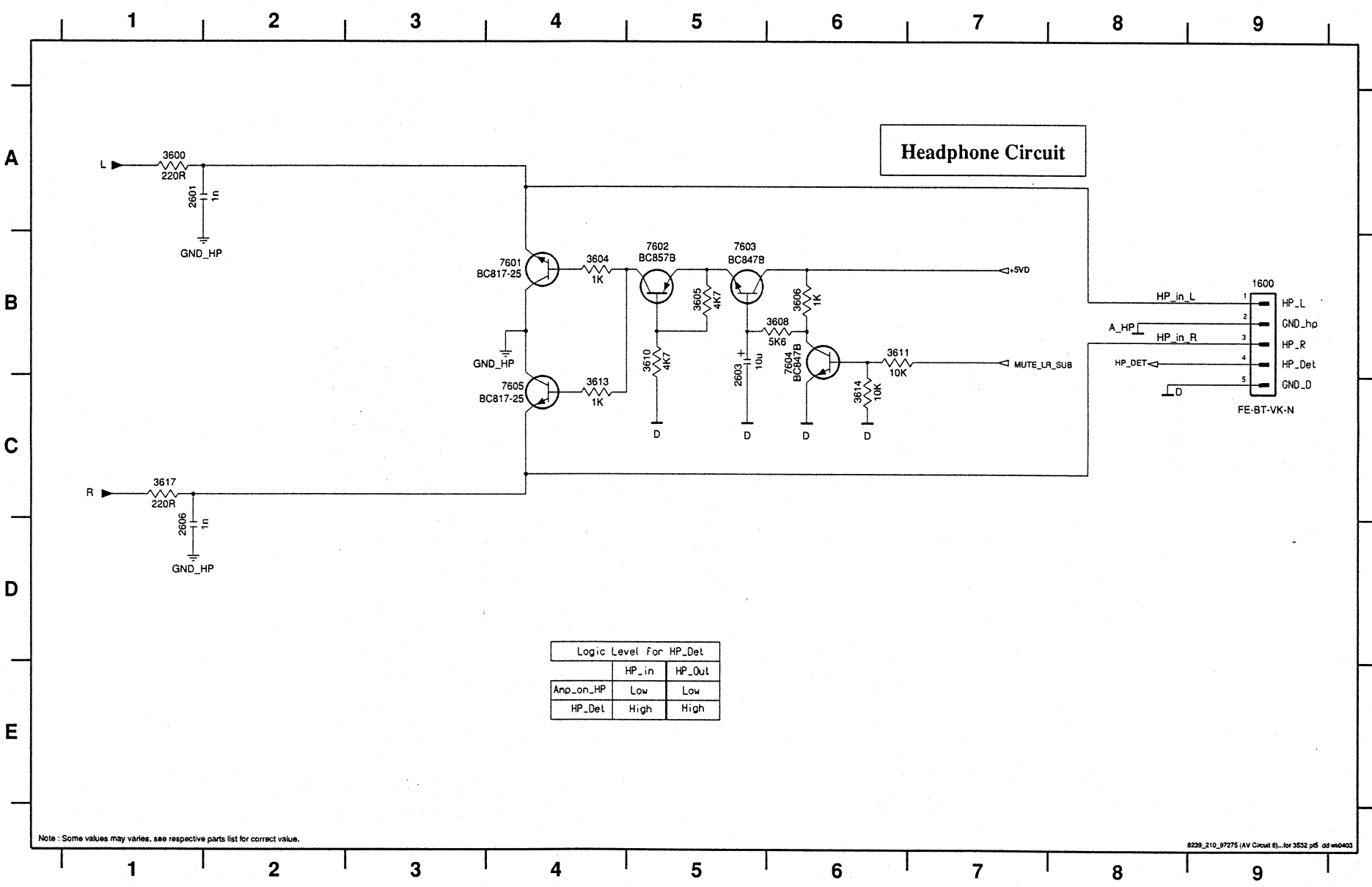
1500 A1 1502 D1 2501 D8 2503 D2 2505 E6 2507 E2 2509 E3 2511 E3 3503 B5 3505 C2 3507 C3 3509 D7 3511 E7 3513 E7 4500 A3 5501 C6 6500 C3 7501 C4 7503 C3 7505 D7 7507 D2
1501 A8 2500 D3 2502 D8 2504 E6 2506 E1 2508 E2 2510 E3 3502 B3 3504 C4 3506 C3 3508 C3 3510 D6 3512 E7 3514 E7 4501 B3 5503 C9 7500 C3 7502 C4 7504 C7 7506 D7



7-10

AV BOARD - CIRCUIT DIAGRAM (PART 6)

1600 B9 2601 A1 2603 B5 2606 D1 3600 A1 3604 B4 3605 B5 3606 B6 3608 B6 3610 B5 3611 B6 3613 C4 3614 C6 3617 C1 7601 B4 7602 B5 7603 B5 7604 B6 7605 C4



MISCELLANEOUS

1100	4822 267 11039	Flex Connector 11P
1101	4822 265 31205	Flex Connector 5P
1103	2422 026 05462	Socket Cinch 4P(Aux-in/Line-out)
1200	2422 025 17433	Flex Connector 30P
1300	4822 267 10729	Flex Connector 10P
1301	4822 267 10729	Flex Connector 10P
1400	2422 025 12352	Socket Scart 21P
1401	2422 025 17433	Flex Connector 30P
1405	2422 033 00468	Socket 2P (S-Video/CVBS)
1408	2422 026 05427	Socket Cinch 1P (Digital in)
1410	3139 241 21102	EMC Spring
1411	3139 241 21102	EMC Spring
1501	2422 025 16525	Flex Connector 16P
1600	4822 265 31205	Flex Connector 5P

CAPACITORS

2100	4822 124 41643	100uF 20% 16V
2101	5322 126 11578	1nF 10% 50V
2102	4822 124 22651	1uF 20% 50V
2103	3198 017 41050	1uF 10V
2105	4822 126 13883	220pF 5% 50V
2108	3198 017 41050	1uF 10V
2110	4822 126 13883	220pF 5% 50V
2113	4822 126 14221	68pF 5% 50V
2114	3198 017 41050	1uF 10V
2116	2020 552 94427	100pF 5% 50V
2118	3198 017 41050	1uF 10V
2120	2020 552 94427	100pF 5% 50V
2122	4822 124 23052	100uF 20% 16V
2124	4822 124 22651	1uF 20% 50V
2125	4822 124 23052	100uF 20% 16V
2127	4822 126 14221	68pF 5% 50V
2128	3198 017 41050	1uF 10V
2129	4822 126 14221	68pF 5% 50V
2130	2020 552 94427	100pF 5% 50V
2131	2238 586 59812	100nF +80/-20% 50V
2132	4822 126 14226	82pF 5% 50V
2133	4822 126 13881	470pF 5% 50V
2134	4822 126 14241	330pF 50V
2135	3198 017 41050	1uF 10V
2136	2238 586 59812	100nF +80/-20% 50V
2137	4822 126 14221	68pF 5% 50V
2138	2020 552 94427	100pF 5% 50V
2139	4822 126 11785	47pF 5% 50V
2140	4822 126 13881	470pF 5% 50V
2141	4822 126 14241	330pF 50V
2142	4822 126 14226	82pF 5% 50V
2143	4822 126 13881	470pF 5% 50V
2144	4822 126 14241	330pF 50V
2145	4822 124 22652	2,2uF 20% 50V
2146	4822 126 11785	47pF 5% 50V
2147	4822 126 13881	470pF 5% 50V
2148	4822 126 14241	330pF 50V
2200	2238 586 59812	100nF +80/-20% 50V
2201	2238 586 59812	100nF +80/-20% 50V
2202	2238 586 59812	100nF +80/-20% 50V
2203	2238 586 59812	100nF +80/-20% 50V
2204	4822 126 14249	560pF 10% 50V
2205	2020 552 94427	100pF 5% 50V
2206	2238 586 59812	100nF +80/-20% 50V
2207	4822 126 11785	47pF 5% 50V
2208	4822 126 14249	560pF 10% 50V
2209	2238 586 59812	100nF +80/-20% 50V
2210	2238 586 59812	100nF +80/-20% 50V
2211	2238 586 59812	100nF +80/-20% 50V
2212	4822 126 14249	560pF 10% 50V
2213	2020 552 94427	100pF 5% 50V
2214	4822 126 14238	2,2nF 50V
2215	4822 126 11785	47pF 5% 50V
2216	3198 016 36810	680pF 25V
2217	4822 126 14249	560pF 10% 50V
2218	2238 586 59812	100nF +80/-20% 50V
2220	4822 126 14249	560pF 10% 50V
2221	2020 552 94427	100pF 5% 50V
2222	2020 552 94427	100pF 5% 50V
2223	2238 586 59812	100nF +80/-20% 50V
2224	4822 126 11785	47pF 5% 50V
2225	2238 586 59812	100nF +80/-20% 50V
2227	4822 126 14249	560pF 10% 50V
2228	4822 124 40769	4,7uF 20% 100V
2229	2238 586 59812	100nF +80/-20% 50V
2230	3198 037 11010	100uF 20% 10V
2231	2238 586 59812	100nF +80/-20% 50V
2233	4822 126 14249	560pF 10% 50V
2234	2020 552 94427	100pF 5% 50V
2235	2020 552 94427	100pF 5% 50V
2236	4822 126 11785	47pF 5% 50V
2238	4822 126 14249	560pF 10% 50V
2239	2238 586 59812	100nF +80/-20% 50V
2240	3198 016 31020	1nF 25V
2241	4822 126 14226	82pF 5% 50V
2242	4822 126 14241	330pF 50V
2243	4822 126 13881	470pF 5% 50V
2244	2238 586 59812	100nF +80/-20% 50V
2245	2238 586 59812	100nF +80/-20% 50V
2246	4822 124 23052	100uF 20% 16V
2248	4822 124 23052	100uF 20% 16V
2249	4822 126 14249	560pF 10% 50V
2250	4822 126 11785	47pF 5% 50V
2251	4822 124 22652	2,2uF 20% 50V
2252	4822 126 14226	82pF 5% 50V
2254	4822 124 23052	100uF 20% 16V
2255	4822 126 14241	330pF 50V
2256	4822 126 13881	470pF 5% 50V

7-11

ELECTRICAL PARTS LIST - AV BOARD

2257	4822 126 14249	560pF 10% 50V
2259	4822 126 14249	560pF 10% 50V
2260	2020 552 94427	100pF 5% 50V
2261	4822 126 11785	47pF 5% 50V
2263	4822 124 23052	100uF 20% 16V
2265	4822 124 23052	100uF 20% 16V
2267	4822 126 14249	560pF 10% 50V
2269	4822 124 23052	100uF 20% 16V
2271	4822 124 23052	100uF 20% 16V
2272	4822 126 11785	47pF 5% 50V
2273	4822 126 14226	82pF 5% 50V
2286	4822 124 40248	10uF 20% 63V
2287	4822 124 40248	10uF 20% 63V
2288	4822 124 40248	10uF 20% 63V
2289	4822 124 40248	10uF 20% 63V
2290	4822 126 14472	1uF 10% 10V
2300	3198 017 41050	1uF 10V
2301	2020 552 94427	100pF 5% 50V
2302	2020 552 94427	100pF 5% 50V
2303	3198 017 41050	1uF 10V
2304	3198 017 41050	1uF 10V
2305	3198 017 41050	1uF 10V
2306	2238 586 59812	100nF +80/-20% 50V
2307	4822 124 40433	47uF 20% 25V
2308	3198 017 41050	1uF 10V
2309	2020 552 94427	100pF 5% 50V
2310	2020 552 94427	100pF 5% 50V
2311	3198 017 41050	1uF 10V
2312	2238 916 15641	22nF 10% 25V
2313	4822 124 40433	47uF 20% 25V
2314	3198 017 41050	1uF 10V
2315	3198 017 41050	1uF 10V
2316	3198 017 41050	1uF 10V
2317	4822 124 40433	47uF 20% 25V
2318	2238 916 15641	22nF 10% 25V
2319	2020 552 94427	100pF 5% 50V
2320	2020 552 94427	100pF 5% 50V
2321	4822 051 30008	0R Jumper 0603
2322	3198 017 41050	1uF 10V
2323	3198 017 41050	1uF 10V
2324	2222 586 18812	100nF 10% 50V
2400	4822 126 14043	1uF +80/-20% 16V
2401	3198 016 31020	1nF 25V
2402	3198 017 41050	1uF 10V
2403	4822 126 13193	4,7nF 10% 63V
2404	4822 126 13883	220pF 5% 50V
2405	3198 016 31020	1nF 25V
2406	4822 126 13883	220pF 5% 50V
2407	3198 016 31020	1nF 25V
2408	4822 126 13193	4,7nF 10% 63V
2409	4822 124 40769	4,7uF 20% 100V
2410	3198 017 41050	1uF 10V
2411	3198 016 31020	1nF 25V
2412	4822 126 14043	1uF +80/-20% 16V
2413	4822 126 13883	220pF 5% 50V
2414	4822 126 13883	220pF 5% 50V
2417	4822 126 13883	220pF 5% 50V
2418	3198 017 42230	22nF 50V
2419	4822 126 13883	220pF 5% 50V
2420	4822 124 21732	10uF 20% 25V
2422	4822 126 13883	220pF 5% 50V
2423	4822 124 21732	10uF 20% 25V
2434	4822 124 21732	10uF 20% 25V
2437	4822 124 21732	10uF 20% 25V
2440	4822 126 13883	220pF 5% 50V
2441	4822 126 14221	68pF 5% 50V
2442	4822 126 13883	220pF 5% 50V
2443	4822 126 14221	68pF 5% 50V
2445	5322 126 11583	10nF 10% 50V
2446	4822 126 14508	180pF 5% 50V
2500	4822 124 41643	100uF 20% 16V
2501	4822 124 23002	10uF 16V
2502	2238 586 59812	100nF +80/-20% 50V
2503	4822 124 41643	100uF 20% 16V
2504	4822 124 23002	10uF 16V
2505	2238 586 59812	100nF +80/-20% 50V
2506	2238 586 59812	100nF +80/-20% 50V
2507	3198 029 22210	220uF 20% 16V
2508	4822 126 14585	100nF 10% 50V
2509	2238 586 59812	100nF +80/-20% 50V
2510	4822 124 23052	100uF 20% 16V

RESISTORS

3100	4822 117 11817	1k2 1% 1/16W
3101	4822 117 11817	1k2 1% 1/16W
3102	4822 117 12925	47k 1% 0,063W
3103	4822 117 12925	47k 1% 0,063W
3104	4822 052 10478 ⚠	4R7 5% 0,33W
3105	4822 051 30152	1k5 5% 0,062W
3106	4822 051 30562	5k6 5% 0,063W
3107	4822 051 30682	6k8 5% 0,062W
3108	4822 117 11817	1k2 1% 1/16W
3109	4822 051 30472	4k7 5% 0,062W
3110	4822 051 30563	56k 5% 0,062W
3111	4822 051 30472	4k7 5% 0,062W
3112	4822 051 30563	56k 5% 0,062W
3114	4822 117 13632	100k 1% 0,62W
3116	4822 051 30561	560R 5% 0,062W
3118	4822 051 30681	680R 5% 0,062W
3119	4822 051 30563	56k 5% 0,062W
3120	4822 117 11817	1k2 1% 1/16W
3121	4822 117 13632	100k 1% 0,62W
3123	4822 051 30681	680R 5% 0,062W
3124	4822 051 30563	56k 5% 0,062W

RESISTORS

3125	4822 051 30562	5k6 5% 0,063W
3128	4822 051 30682	6k8 5% 0,062W
3129	4822 051 30561	560R 5% 0,062W
3130	4822 051 30472	4k7 5% 0,062W
3131	4822 051 30562	5k6 5% 0,063W
3132	4822 051 30273	27k 5% 0,062W
3133	4822 051 30153	15k 5% 0,062W
3134	4822 051 30103	10k 5% 0,062W
3135	4822 051 30152	1k5 5% 0,062W
3136	4822 051 30472	4k7 5% 0,062W
3137	4822 051 30562	5k6 5% 0,063W
3138	4822 051 30123	12k 5% 0,062W
3139	4822 051 30123	12k 5% 0,062W
3140	4822 051 30273	27k 5% 0,062W
3141	4822 051 30153	15k 5% 0,062W
3142	4822 051 30103	10k 5% 0,062W
3143	4822 051 30152	1k5 5% 0,062W
3144	4822 051 30123	12k 5% 0,062W
3145	4822 051 30123	12k 5% 0,062W
3146	4822 051 30103	10k 5% 0,062W
3147	4822 051 30153	15k 5% 0,062W
3148	4822 051 30103	10k 5% 0,062W
3149	4822 051 30152	1k5 5% 0,062W
3150	4822 117 12925	47k 1% 0,063W
3151	4822 051 30471	470R 5% 0,062W
3152	4822 051 30471	470R 5% 0,062W
3153	4822 051 30123	12k 5% 0,062W
3154	4822 051 30123	12k 5% 0,062W
3155	4822 117 12925	47k 1% 0,063W
3156	4822 051 30471	470R 5% 0,062W
3157	4822 051 30471	470R 5% 0,062W
3158	4822 051 30103	10k 5% 0,062W
3159	4822 051 30153	15k 5% 0,062W
3160	4822 051 30103	10k 5% 0,062W
3161	4822 051 30152	1k5 5% 0,062W
3162	4822 051 30123	12k 5% 0,062W
3163	4822 051 30123	12k 5% 0,062W
3164	4822 051 30471	470R 5% 0,062W
3200	4822 051 30339	33R 5% 0,062W
3201	4822 051 30339	33R 5% 0,062W
3202	4822 051 30339	33R 5% 0,062W
3203	4822 051 30339	33R 5% 0,062W
3204	4822 051 30562	5k6 5% 0,063W
3205	4822 051 30123	12k 5% 0,062W
3206	4822 051 30339	33R 5% 0,062W
3207	4822 051 30339	33R 5% 0,062W
3208	4822 051 30339	33R 5% 0,062W
3209	4822 051 30123	12k 5% 0,062W
3210	4822 117 12903	1k8 1% 0,063W
3211	4822 051 30339	33R 5% 0,062W
3212	4822 051 30562	5k6 5% 0,063W
3213	4822 051 30123	12k 5% 0,062W
3214	4822 051 30339	33R 5% 0,062W
3215	4822 051 30339	33R 5% 0,062W
3216	4822 051 30123	12k 5% 0,062W
3217	4822 117 12903	1k8 1% 0,063W
3218	4822 051 30562	5k6 5% 0,063W
3219	4822 051 30123	12k 5% 0,062W
3220	4822 051 30339	33R 5% 0,062W
3221	4822 051 30103	10k 5% 0,062W
3222	4822 051 30339	33R 5% 0,062W
3223	4822 051 30123	12k 5% 0,062W
3224	4822 117 12903	1k8 1% 0,063W
3225	4822 051 30103	10k 5% 0,062W
3226	4822 051 30222	2k2 5% 0,062W
3227	4822 051 30222	2k2 5% 0,062W
3228	4822 051 30562	5k6 5% 0,063W
3229	4822 051 30123	12k 5% 0,062W
3230	4822 051 30103	10k 5% 0,062W
3231	4822 051 30123	12k 5% 0,062W
3232	4822 117 12903	1k8 1% 0,063W
3233	4822 051 30103	10k 5% 0,062W
3234	4822 051 30562	5k6 5% 0,063W
3236	4822 051 30123	12k 5% 0,062W
3237	4822 117 13632	100k 1% 0,62W
3238	4822 051 30123	12k 5% 0,062W
3239	4822 117 12903	1k8 1% 0,063W
3240	4822 117 13632	100k 1% 0,62W
3241	4822 051 30562	5k6 5% 0,063W
3243	4822 051 30123	12k 5% 0,062W
3244	4822 117 13632	100k 1% 0,62W
3245	4822 117 13632	100k 1% 0,62W
3246	4822 051 30123	12k 5% 0,062W
3247	4822 117 12903	1k8 1% 0,063W
3248	4822 051 30562	5k6 5% 0,063W
3250	4822 051 30123	12k 5% 0,062W
3251	4822 117 13632	100k 1% 0,62W
3252	4822 051 30123	12k 5% 0,062W
3253	4822 117 12903	1k8 1% 0,063W
3254	4822 051 30562	5k6 5% 0,063W
3256	4822 051 30123	12k 5% 0,062W
3257	4822 051 30123	12k 5% 0,062W
3258	4822 117 12903	1k8 1% 0,063W
3259	4822 117 13632	100k 1% 0,62W
3260	4822 117 13632	100k 1% 0,62W
3261	4822 117 13632	100k 1% 0,62W
3262	4822 052 10229 ⚠	22R 5% 0,33W
3263	4822 051 30332	3k3 5% 0,062W
3264	4822 051 30392	3k9 5% 0,063W
3265	4822 051 30153	15k 5% 0,062W
3266	4822 117 11817	1k2 1% 1/16W
3267	4822 051 30183	18k 5% 0,062W
3268	4822 051 30183	18k 5% 0,062W
3269	4822 051 30103	10k 5% 0,062W

7-12

ELECTRICAL PARTS LIST - AV BOARD

3270	4822 051 30332	3k3 5% 0,062W
3271	4822 051 30392	3k9 5% 0,063W
3272	4822 051 30153	15k 5% 0,062W
3273	4822 051 30183	18k 5% 0,062W
3274	4822 051 30183	18k 5% 0,062W
3275	4822 051 30102	1k 5% 0,062W
3276	4822 051 30102	1k 5% 0,062W
3277	4822 051 30562	5k6 5% 0,063W
3279	4822 051 30123	12k 5% 0,062W
3282	4822 051 30123	12k 5% 0,062W
3283	4822 117 12903	1k8 1% 0,063W
3284	4822 051 30562	5k6 5% 0,063W
3286	4822 051 30123	12k 5% 0,062W
3287	4822 117 12891	220k 1%
3288	4822 051 30123	12k 5% 0,062W
3289	4822 117 12903	1k8 1% 0,063W
3290	4822 051 30222	2k2 5% 0,062W
3300	4822 051 30681	680R 5% 0,062W
3301	4822 051 30681	680R 5% 0,062W
3302	4822 051 30101	100R 5% 0,062W
3303	4822 051 30101	100R 5% 0,062W
3304	4822 051 30102	1k 5% 0,062W
3305	4822 051 30102	1k 5% 0,062W
3306	4822 117 12903	1k8 1% 0,063W
3307	4822 117 12903	1k8 1% 0,063W
3308	4822 051 30102	1k 5% 0,062W
3309	4822 051 30102	1k 5% 0,062W
3310	4822 051 30681	680R 5% 0,062W
3311	4822 051 30681	680R 5% 0,062W
3312	4822 051 30339	33R 5% 0,062W
3313	4822 051 30339	33R 5% 0,062W
3314	4822 051 30102	1k 5% 0,062W
3315	4822 117 12925	47k 1% 0,063W
3316	4822 051 30273	27k 5% 0,062W
3317	4822 051 30102	1k 5% 0,062W
3318	4822 051 30102	1k 5% 0,062W
3319	4822 051 30472	4k7 5% 0,062W
3320	4822 051 30102	1k 5% 0,062W
3321	4822 051 30472	4k7 5% 0,062W
3322	4822 051 30102	1k 5% 0,062W
3323	4822 051 30681	680R 5% 0,062W
3324	4822 051 30681	680R 5% 0,062W
3325	4822 051 30101	100R 5% 0,062W
3326	4822 051 30101	100R 5% 0,062W
3327	4822 051 30102	1k 5% 0,062W
3328	4822 051 30102	1k 5% 0,062W
3329	4822 117 12903	1k8 1% 0,063W
3330	4822 117 12903	1k8 1% 0,063W
3331	4822 051 30102	1k 5% 0,062W
3332	4822 051 30102	1k 5% 0,062W
3334	4822 051 30681	680R 5% 0,062W
3335	4822 051 30681	680R 5% 0,062W
3336	4822 051 30102	1k 5% 0,062W
3337	4822 117 12925	47k 1% 0,063W
3338	4822 051 30273	27k 5% 0,062W
3339	4822 051 30102	1k 5% 0,062W
3340	4822 051 30102	1k 5% 0,062W
3341	4822 051 30472	4k7 5% 0,062W
3342	4822 051 30102	1k 5% 0,062W
3343	4822 051 30472	4k7 5% 0,062W
3344	4822 051 30102	1k 5% 0,062W
3346	4822 051 30681	680R 5% 0,062W
3347	4822 051 30681	680R 5% 0,062W
3348	4822 051 30101	100R 5% 0,062W
3349	4822 051 30101	100R 5% 0,062W
3350	4822 051 30102	1k 5% 0,062W
3351	4822 051 30102	1k 5% 0,062W
3352	4822 117 12903	1k8 1% 0,063W
3353	4822 117 12903	1k8 1% 0,063W
3354	4822 051 30102	1k 5% 0,062W
3355	4822 051 30102	1k 5% 0,062W
3356	4822 051 30681	680R 5% 0,062W
3357	4822 051 30681	680R 5% 0,062W
3358	4822 051 30273	27k 5% 0,062W
3359	4822 051 30102	1k 5% 0,062W
3360	4822 051 30102	1k 5% 0,062W
3361	4822 051 30102	1k 5% 0,062W
3362	4822 051 30472	4k7 5% 0,062W
3363	4822 051 30472	4k7 5% 0,062W
3400	4822 051 30103	10k 5% 0,062W
3401	4822 117 12925	47k 1% 0,063W
3403	4822 051 30222	2k2 5% 0,062W
3404	4822 051 30471	470R 5% 0,062W
3405	4822 117 12925	47k 1% 0,063W
3406	4822 051 30223	22k 5% 0,062W
3407	4822 117 12925	47k 1% 0,063W
3408	4822 051 30471	470R 5% 0,062W
3409	4822 117 12925	47k 1% 0,063W
3410	4822 051 30223	22k 5% 0,062W
3411	5322 117 13056	8k2 1% 0,063W
3412	4822 051 30222	2k2 5% 0,062W
3413	4822 117 12925	47k 1% 0,063W
3415	4822 051 30103	10k 5% 0,062W
3416	4822 051 30471	470R 5% 0,062W
3417	4822 051 30103	10k 5% 0,062W
3418	4822 051 30103	10k 5% 0,062W
3421	4822 051 30103	10k 5% 0,062W
3422	4822 051 30471	470R 5% 0,062W
3423	4822 051 30103	10k 5% 0,062W
3424	4822 051 30103	10k 5% 0,062W
3425	5322 117 13055	75R 1% 0,063W
3426	4822 051 30759	75R 5% 0,062W
3427	4822 051 30103	10k 5% 0,062W
3428	4822 117 12925	47k 1% 0,063W

ELECTRICAL PARTS LIST - AV BOARD

RESISTORS

3430	5322 117 13055	75R 1% 0,063W
3432	4822 051 30123	12k 5% 0,062W
3433	4822 051 30759	75R 5% 0,062W
3434	4822 051 30103	10k 5% 0,062W
3435	4822 051 30223	22k 5% 0,062W
3437	4822 051 30103	10k 5% 0,062W
3439	5322 117 13055	75R 1% 0,063W
3454	4822 051 30151	150R 5% 0,062W
3455	4822 051 30151	150R 5% 0,062W
3502	4822 117 12925	47k 1% 0,063W
3503	4822 117 12925	47k 1% 0,063W
3504	4822 117 12925	47k 1% 0,063W
3505	4822 052 10568 ⚠	5R6 5% 0,33W
3506	4822 116 83872	220R 5% 0,5W
3507	4822 051 30471	470R 5% 0,062W
3508	4822 051 30102	1k 5% 0,062W
3509	4822 117 12139	22R 5% 0,062W
3510	4822 051 30689	68R 5% 0,063W
3511	5322 117 13028	12k 1% 0,063W
3512	5322 117 13028	12k 1% 0,063W
4100	4822 051 30008	0R Jumper 0603
4101	4822 051 30008	0R Jumper 0603
4102	4822 051 30008	0R Jumper 0603
4103	4822 051 30008	0R Jumper 0603
4104	4822 051 30008	0R Jumper 0603
4111	4822 051 30008	0R Jumper 0603
4112	4822 051 30008	0R Jumper 0603
4116	4822 051 30008	0R Jumper 0603
4117	4822 051 30008	0R Jumper 0603
4119	4822 051 30008	0R Jumper 0603
4120	4822 051 30008	0R Jumper 0603
4121	4822 051 30008	0R Jumper 0603
4300	4822 051 30008	0R Jumper 0603
4301	4822 051 20008	0R Jumper 0805
4302	4822 051 20008	0R Jumper 0805
4400	4822 051 30008	0R Jumper 0603
4406	4822 051 30008	0R Jumper 0603
4407	4822 051 30008	0R Jumper 0603
4409	4822 051 30008	0R Jumper 0603
4410	4822 051 30008	0R Jumper 0603
4411	4822 051 30008	0R Jumper 0603
4412	4822 051 30008	0R Jumper 0603
4413	4822 051 30008	0R Jumper 0603
4414	4822 051 30008	0R Jumper 0603
4415	4822 051 30008	0R Jumper 0603
4416	4822 051 30008	0R Jumper 0603
4417	4822 051 30008	0R Jumper 0603
4422	4822 051 30008	0R Jumper 0603
4423	4822 051 30008	0R Jumper 0603
4424	4822 051 30008	0R Jumper 0603
4425	4822 051 30008	0R Jumper 0603
4426	4822 051 30008	0R Jumper 0603
4427	4822 051 30008	0R Jumper 0603
4428	4822 051 30008	0R Jumper 0603
4429	4822 051 30008	0R Jumper 0603
4430	4822 051 30008	0R Jumper 0603
4431	4822 051 30008	0R Jumper 0603
4432	4822 051 30008	0R Jumper 0603
4433	4822 051 30008	0R Jumper 0603
4434	4822 051 30008	0R Jumper 0603
4435	4822 051 30008	0R Jumper 0603
4436	4822 051 30008	0R Jumper 0603
4437	4822 051 30008	0R Jumper 0603
4438	4822 051 30008	0R Jumper 0603
4439	4822 051 30008	0R Jumper 0603
4440	4822 051 30008	0R Jumper 0603
4441	4822 051 30008	0R Jumper 0603
4442	4822 051 30008	0R Jumper 0603
4443	4822 051 30008	0R Jumper 0603
4444	4822 051 30008	0R Jumper 0603
4445	4822 051 30008	0R Jumper 0603
4446	4822 051 30008	0R Jumper 0603
4447	4822 051 30008	0R Jumper 0603
4448	4822 051 30008	0R Jumper 0603
4449	4822 051 30008	0R Jumper 0603
4450	4822 051 30008	0R Jumper 0603
4451	4822 051 30008	0R Jumper 0603
4452	4822 051 30008	0R Jumper 0603
4453	4822 051 30008	0R Jumper 0603
4454	4822 051 30008	0R Jumper 0603
4455	4822 051 30008	0R Jumper 0603
4456	4822 051 30008	0R Jumper 0603
4457	4822 051 30008	0R Jumper 0603
4458	4822 051 30008	0R Jumper 0603
4459	4822 051 30008	0R Jumper 0603
4460	4822 051 30008	0R Jumper 0603
4461	4822 051 30008	0R Jumper 0603
4462	4822 051 30008	0R Jumper 0603
4463	4822 051 30008	0R Jumper 0603
4464	4822 051 30008	0R Jumper 0603
4465	4822 051 30008	0R Jumper 0603
4466	4822 051 30008	0R Jumper 0603
4500	4822 051 20008	0R Jumper 0805
4501	4822 051 20008	0R Jumper 0805

COILS & FILTERS

5102	4822 157 62552	FXDIND 2,2uH 5%
5103	4822 157 62552	FXDIND 2,2uH 5%
5200	2422 549 43062	FXDIND 0603 100MHz 600R
5201	2422 549 43062	FXDIND 0603 100MHz 600R
5202	2422 549 43062	FXDIND 0603 100MHz 600R
5203	2422 549 43062	FXDIND 0603 100MHz 600R
5204	2422 549 43062	FXDIND 0603 100MHz 600R
5205	2422 549 43062	FXDIND 0603 100MHz 600R

7-13

ELECTRICAL PARTS LIST - AV BOARD

5206	4822 157 62552	FXDIND 2,2uH 5%
5207	4822 157 62552	FXDIND 2,2uH 5%
5208	4822 157 62552	FXDIND 2,2uH 5%
5209	4822 157 62552	FXDIND 2,2uH 5%
5210	4822 157 62552	FXDIND 2,2uH 5%
5211	4822 242 11033	RES XTL 4,332MHz
5212	4822 157 62552	FXDIND 2,2uH 5%
5213	4822 157 62552	FXDIND 2,2uH 5%
5301	4822 157 62552	FXDIND 2,2uH 5%
5501	2422 086 11103	FUSE SM F 2A 125V UL R
5503	4822 157 11717	INDFXD 1206 EMI 100MHz 50R

DIODES

6100	4822 130 30621	1N4148
6101	9322 150 08685	BZX384-C9V1
6102	4822 130 30621	1N4148
6103	4822 130 11397	BAS316
6200	4822 130 83206	BZX79-B5V6
6300	4822 130 11397	BAS316
6301	4822 130 11397	BAS316
6302	4822 130 11397	BAS316
6303	4822 130 11397	BAS316
6304	4822 130 11397	BAS316
6305	4822 130 11397	BAS316
6306	4822 130 11397	BAS316
6307	4822 130 11397	BAS316
6308	4822 130 11397	BAS316
6309	4822 130 11397	BAS316
6310	4822 130 11397	BAS316
6311	4822 130 11397	BAS316
6312	4822 130 11397	BAS316
6404	9340 548 67115	BZX384-C22
6405	4822 130 11522	BZX384-C15
6406	4822 130 11522	BZX384-C15
6407	4822 130 11522	BZX384-C15
6408	4822 130 11522	BZX384-C15
6500	4822 130 34174	BZX79-B4V7

TRANSISTORS & INTEGRATED CIRCUITS

7100	4822 130 40959	BC547B
7102	5322 209 11102	IC SM HEF4052BT
7103	9322 203 36668	IC SM CS42418-CQ
7104	4822 209 31378	IC SM NJM4556AM
7105	5322 130 60159	BC847B
7107	4822 130 60373	BC857B
7108	5322 130 60159	BC847B
7200	4822 209 30095	IC SM LM833D
7201	4822 209 30095	IC SM LM833D
7202	4822 209 30095	IC SM LM833D
7205	4822 130 40959	BC547B
7207	9352 686 05118	IC SM SAA6581T
7300	5322 130 60159	BC847B
7301	5322 130 60159	BC847B
7303	5322 130 60159	BC847B
7304	5322 130 60159	BC847B
7306	4822 130 60373	BC857B
7307	4822 130 60373	BC857B
7308	4822 209 17345	IC SM M62320FP
7309	5322 130 60159	BC847B
7310	5322 130 60159	BC847B
7311	5322 130 60159	BC847B
7312	5322 130 60159	BC847B
7313	5322 130 60159	BC847B
7314	4822 130 60373	BC857B
7315	4822 130 60373	BC857B
7316	5322 130 60159	BC847B
7317	5322 130 60159	BC847B
7318	5322 130 60159	BC847B
7319	5322 130 60159	BC847B
7320	5322 130 60159	BC847B
7321	4822 130 60373	BC857B
7400	5322 130 60159	BC847B
7401	4822 130 60373	BC857B
7402	5322 130 60159	BC847B
7404	5322 130 60159	BC847B
7405	5322 130 60159	BC847B
7406	5322 130 60159	BC847B
7408	4822 130 60373	BC857B
7409	5322 130 60159	BC847B
7410	5322 130 60159	BC847B
7500	4822 130 41246	BC327-25
7501	4822 130 60373	BC857B
7502	5322 130 60159	BC847B
7503	4822 130 41246	BC327-25
7504	4822 130 11565	2SB1132
7505	5322 130 60159	BC847B
7506	9322 146 75685	IC SM TS431IL
7507	9322 199 24668	IC SM L7808CD2T
7601	4822 130 42804	BC817-25
7602	4822 130 60373	BC857B
7603	5322 130 60159	BC847B
7604	5322 130 60159	BC847B
7605	4822 130 42804	BC817-25

Note : Only the parts mentioned in this list are normal service spare parts.

AMPLIFIER BOARD

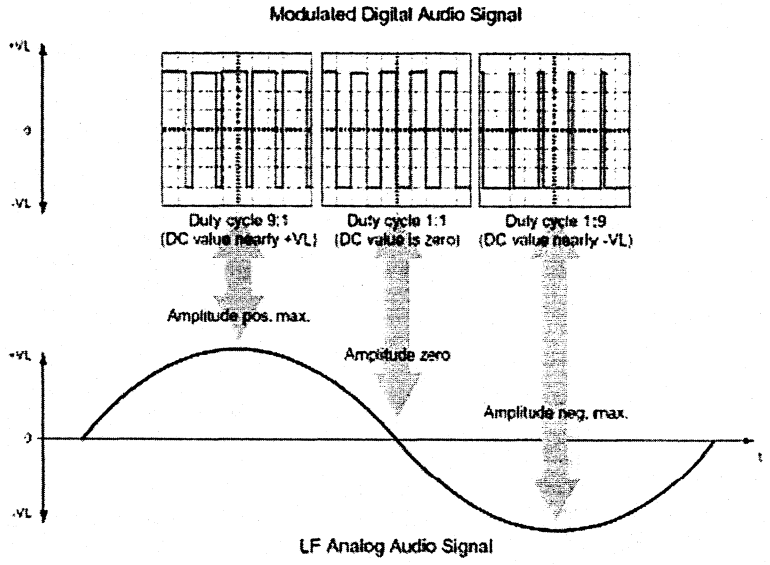
TABLE OF CONTENTS

Class-D Amplifier circuit description 8-1
Exploded view + mechanical parts 8-2
Amplifier circuit 8-3
Clock Generator & connector - circuit 8-4
Bottom view 8-5
Top view 8-6
Bottom view Part A 8-7
Bottom view Part B 8-8
Top view Part C 8-9
Top view Part D 8-10
Electrical parts list - Amplifier board 8-11

6-channel class-D amplifier

Basic operation of a class-D amplifier

Basically, the output stage of a class-D amplifier outputs a continuous square wave swinging between positive and negative power supplies with a fixed frequency ("clock" frequency) far beyond the audible range. The duty cycle of this square wave is modulated with the audio signal. The output is followed by a low-pass filter which eliminates the clock frequency and allows only the audio signal going to the speaker. See simplified drawing below.



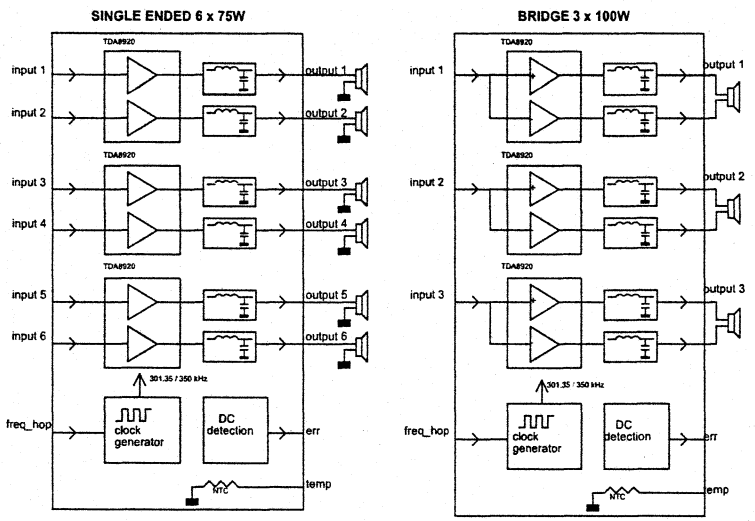
Compared to a conventional power amplifier the benefits of the Class-D amplifier are:

- higher effiency
- lower power dissipation
- smaller heatsink required
- smaller mains transformer required

The main disadvantage of this concept is:

- The amplifier is operating with a high-frequency square wave at high amplitude and currents. This requires special precautions to prevent excessive electromagnetic radiation (EMC).

Block diagram and operation



• clock oscillator

The clock frequency is generated around IC7600. Using 2 extra transistors (7602 and 7608) and 2 ceramic resonators it can be operated at 2 frequencies: 602.7kHz and 700kHz. The frequency is selected by the signal "FREQ_HOP" coming from connector 1301 pin 9.
When FREQ_HOP is low, the output of 7600-1 will be high. This switches transistor 7602 on, and connects resonator 1600 (602.7kHz) to inverter 7600-3. Similarly, when FREQ_HOP is high, resonator 1601 is connected to 7600-3.
The output frequency is divided by two by IC7607, resulting in 301.35kHz or 350kHz.
The purpose of a selectable clock frequency is related to the disturbance of the tuner which is built-in together with this amplifier. In MW, the software of the set microprocessor will select the other clock frequency in case the amplifier clock interferes with the tuned station.

• Class-D amplifier TDA8920 and low-pass filter

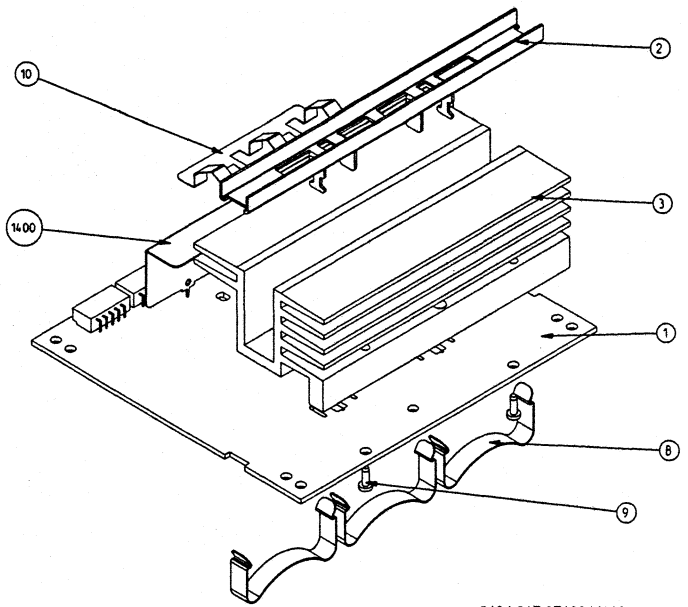
The TDA8920 is a two channel audio power amplifier using class-D technology. The audio input signal is converted into a digital Pulse Width Modulated (PWM) signal via an analog input stage and PWM modulator. It is then fed to the power stage which outputs a high power PWM signal which switches between the main supply lines.
The TDA8920 is followed by a 2nd-order low-pass filter. It has a cut-off frequency around 50kHz and converts the PWM signal into analog audio signal across the loudspeaker.
The TDA8920 has a temperature protection and a current limiter built-in.
Furthermore, the IC can be put in active, mute and standby mode.
- Active mode (amplifier fully operational) with output signal.
- Mute mode; the amplifiers are operational, but the audio is muted
- Standby mode; with a very low supply current, the output stage is switched off.

• DC-detection

The DC-detection circuit monitors all 6 outputs for DC. Whenever one or more outputs contain DC for more than 1 second, the circuit will be activated. A positive voltage will activate transistor 7710 and pin 10 of connector 1301 will be pulled down. In case of a negative voltage, transistor 7716 will be activated, which in turn activates 7710. The set microprocessor will take further action.

8-2

MECHANICAL EXPLODED VIEW



3104 217 07180 bl110

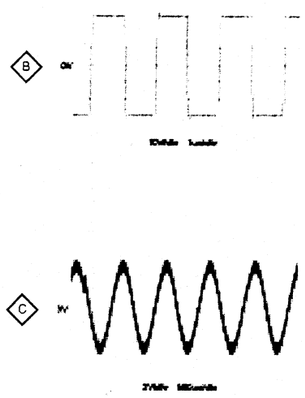
MECHANICAL PARTS LIST & SCREWS

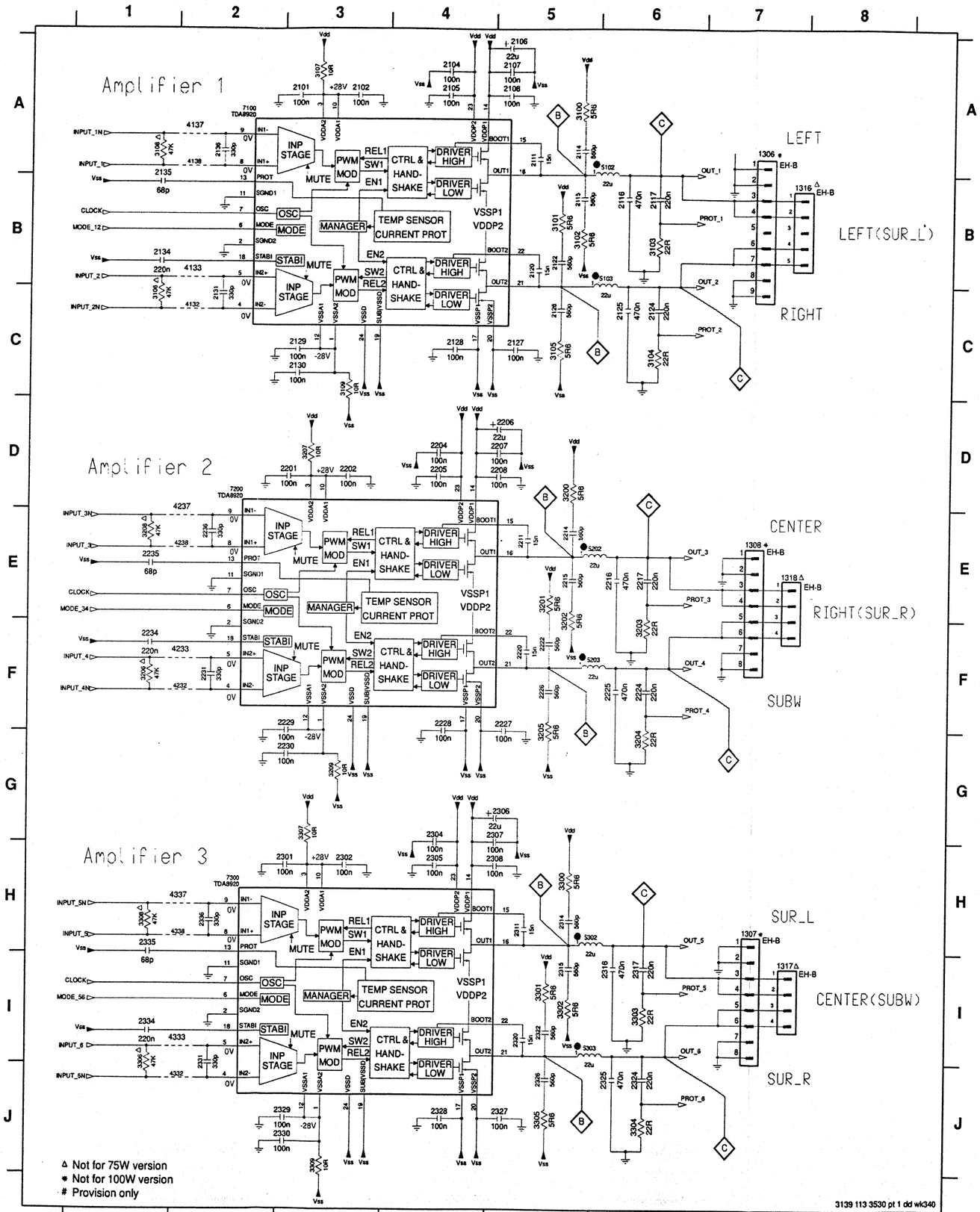
8	3104 211 29861	SPRING 6 CHANNEL
9	-	D2.3 x 8
10	3104 211 29881	EARTH SPRING

Note: Only the parts mentioned in this list are normal service spare parts.

8-3

AMPLIFIER CIRCUIT





1306 A7 5203 F5
1307 H7 5302 H5
1308 E7 5303 I5
1316 B7 7100 A2
1317 I7 7200 D2
1318 E7 7300 H2
2101 A3
2102 A3
2104 A4
2105 A4
2106 A5
2107 A5
2108 A5
2111 A5
2114 A5
2115 B5
2116 B6
2117 B6
2120 B5
2122 B5
2124 C6
2125 C6
2126 C5
2127 C5
2128 C4
2129 C3
2130 C3
2131 C2
2134 B1
2135 B1
2136 A2
2201 D3
2202 D3
2204 D4
2205 D4
2206 D5
2207 D5
2208 D5
2211 E5
2214 E5
2215 E5
2216 E6
2217 E6
2220 F5
2222 F5
2224 F6
2225 F6
2226 F5
2227 F5
2228 F4
2229 F3
2230 G3
2231 F2
2234 F1
2235 E1
2236 E2
2301 H3
2302 H3
2304 G4
2305 H4
2306 G5
2307 G5
2308 H5
2311 H5
2314 H5
2315 I5
2316 I6
2317 I6
2320 I5
2322 I5
2324 J6
2325 J6
2326 J5
2327 J5
2328 J4
2329 J3
2330 J3
2331 I2
2334 I1
2335 H1
2336 H2
3100 A5
3101 B5
3102 B5
3103 B6
3104 C6
3105 C5
3106 C1
3107 A3
3108 A1
3109 C3
3200 D5
3201 E5
3202 F5
3203 F6
3204 G6
3205 G5
3206 F1
3207 D3
3208 E1
3209 G3
3300 H5
3301 I5
3302 I5
3303 I6
3304 J6
3305 J5
3306 I1
3307 G3
3308 H1
3309 J3
4132 C2
4133 B2
4137 A2
4138 A2
4232 F2
4233 F2
4237 E2
4238 E2
4332 J2
4333 I2
4337 H2
4338 H2
5102 A6
5103 B6
5202 E5

8-4

CLOCK GENERATOR & CONNECTOR CIRCUIT

1301: 1 = LEFT (SUR_L)
3 = RIGHT (SUR_R)
5 = CENTER (SUBW)

1302: 1 = LEFT
3 = RIGHT
5 = CENTER

1302 * FE-BT-VK-N

1301 Δ

FE-ST-VK-NA

To AV Board

TEMP
FREQ_HOP
ERR

3414 5K6 INPUT_1
3415 5K6 INPUT_2N
3416 5K6 INPUT_3
3417 5K6 INPUT_4N
3418 5K6 INPUT_5
3419 5K6 INPUT_6N
3423 * 5K6 INPUT_3
3421 5K6 INPUT_1N
3400 Δ 5K6 INPUT_2
3401 * 5K6 INPUT_2
3402 Δ 5K6 INPUT_3N
3403 Δ 5K6 INPUT_4
3404 220R MODE_12
4400 Δ MODE_34
3405 * 5K6 INPUT_3N
3406 Δ 5K6 INPUT_5N
3407 Δ 5K6 INPUT_6
3408 * 220R MODE_34
3409 Δ 220R MODE_56

2406 1n0
2409 1n0
2425 1n0
2410 1n0
1n0

2414 1n0
2413 1n0
2412 1n0
2420 1n0
2411 1n0

1305 & 1303: 1 = SUR_L
3 = SUR_R
5 = SUBW

1303 * FE-BT-VK-N

1305 # FE-ST-VK-NA

To AV Board

3411 * 5K6 INPUT_5N
3424 * 5K6 INPUT_5
3425 * 5K6 INPUT_6N
3413 * 5K6 INPUT_6
3412 * 220R MODE_56
3410 * 5K6 INPUT_4
3426 * 5K6 INPUT_4N

2421 * 1n0
2418 * 1n0
2416 * 1n0
2415 * 1n0
2422 * 1n0
2417 * 1n0

A
D
E

Over-Voltage protection

MODE_12 — 2500 100n
MODE_34 — 2501 100n
MODE_56 — 2502 100n

OPTIONAL

Clock Generator

Vdd
3600 820
3601 820
+5,5V
2611 10u
BZX384-C5V6 6600
3604 10K
3606 100K
3607 1K0
FREQ_HOP 2606 1n0

5V
2605 470p
3602 100K
3609 100K

2601 33p
3602 100p
1600 602K7
2603 100p
3603 10K
3605 6K8
3608 1M
1601 700K
2607 100p
BC857B 7608
7602 BC847B

7600-1 74HCU04D
7600-2 74HCU04D
7600-3 74HCU04D
7600-4 74HCU04D
7600-5 74HCU04D
7600-6 74HCU04D

2500 100n

7607 HEF4013BT
SD1 D1 O1 CP1 CD1
SD2 D2 O2 CP2 CD2

2604 100n
CLOCK
2608 100p
3610 22R

Power Supply

1309 B10B-EH-A
1304 EH-S
1312 Δ SXXB-EH-A
To Supply Board

5400
Vdd +28V
2400 100n
2401 470u 35V
2402 470u 35V

5401
Vss -28V
2403 100n
2404 470u 35V
2405 470u 35V

TEMP
3422 100R
2419 100n
3420 -T- 10K

1320 RT-01T
1400 SCREENCOVER
2423 100n

Δ Not for 75W version
* Not for 100W version
# Provision only

DC-Detection

OUT_1 3700 47K
OUT_2 3701 47K
OUT_3 3709 47K
OUT_4 3712 47K
OUT_5 3716 47K
OUT_6 3718 47K

3721 10K 0V

Vdd
3703 47K
3713 10K
3722 10K
Vss
2700 10u

6713 BAS316
6714 BAS316
6715 BAS316
7710 BC847B
7716 BC857B
ERR

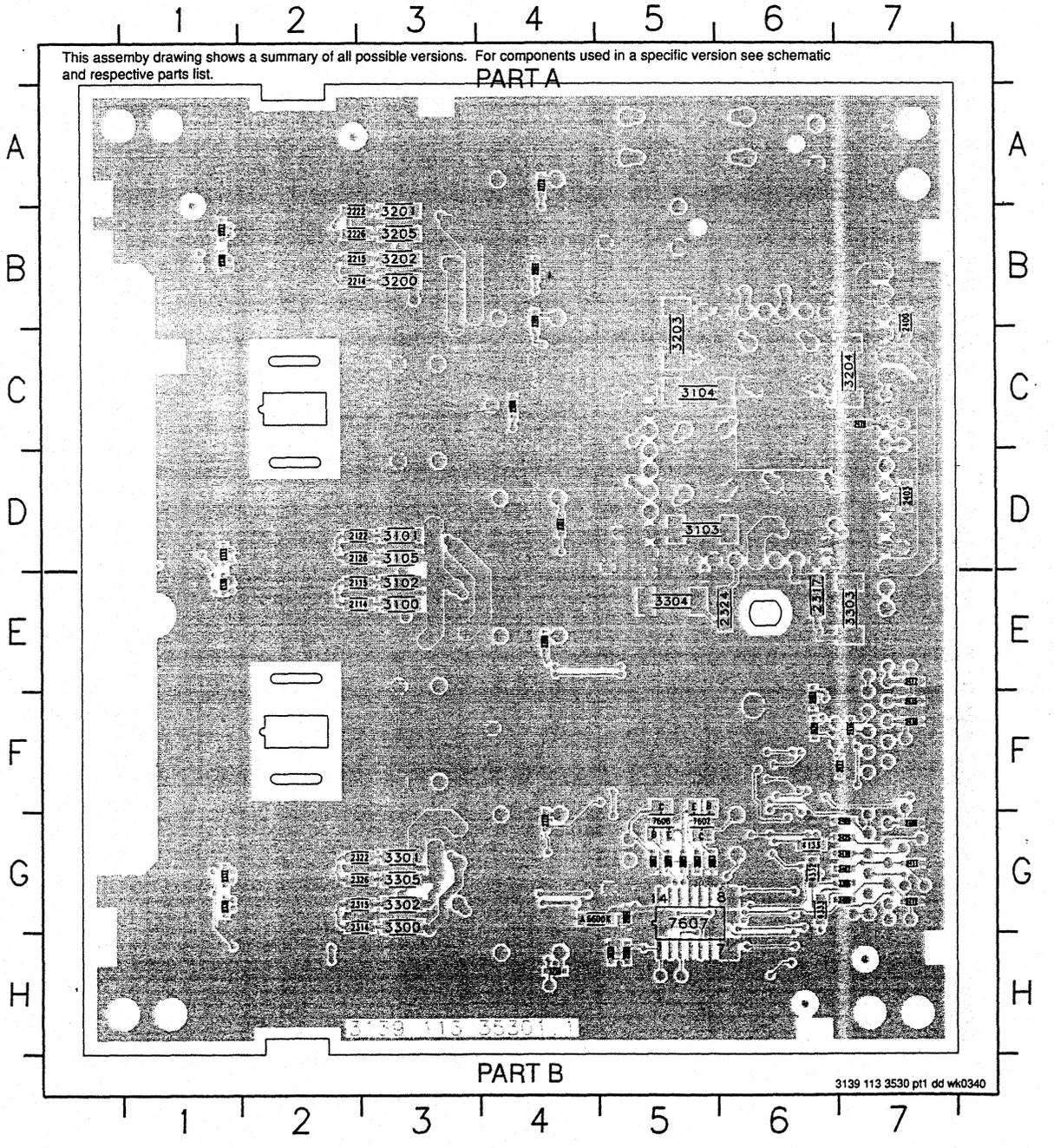
3139 113 3530 pl 1 dd wk340

7716 I12

1301 B1
1302 B2
1303 E2
1304 G2
1305 E1
1309 G1
1312 G3
1320 I5
1400 I6
1600 E9
1601 G9
2400 H3
2401 H4
2402 H4
2403 H3
2404 H4
2405 H4
2406 H3
2407 H3
2408 B2
2409 B3
2410 B3
2411 D3
2412 D2
2413 D2
2414 D2
2415 F3
2416 F2
2417 F3
2418 F2
2419 I2
2420 D3
2421 F2
2422 F3
2423 I7
2425 B3
2500 A10
2501 B10
2502 C10
2600 G7
2601 E9
2602 E8
2603 E9
2604 E11
2605 E7
2606 F7
2607 G9
2608 F12
2611 F6
2700 I11
3400 B4
3401 B4
3402 B4
3403 B4
3404 C4
3405 C4
3406 C4
3407 C4
3408 C4
3409 C4
3410 E4
3411 E4
3412 E4
3413 E4
3414 A4
3415 A4
3416 A4
3417 A4
3418 A4
3419 B4
3420 I2
3421 B4
3422 I2
3423 B4
3424 E4
3425 E4
3426 E4
3600 E6
3601 E6
3602 E8
3603 E10
3604 F6
3605 F9
3606 F7
3607 F6
3608 F8
3609 F8
3610 F12
3700 G10
3701 H10
3703 H11
3709 H10
3712 H10
3713 H11
3716 H10
3718 I10
3721 I10
3722 I11
4400 C4
5400 G4
5401 H4
6600 F6
6713 H11
6714 H11
6715 I11
7600-1 F7
7600-2 F10
7600-3 F9
7600-4 G7
7600-5 F10
7600-6 G7
7602 E9
7607 E11
7608 F9
7710 H12

8-5

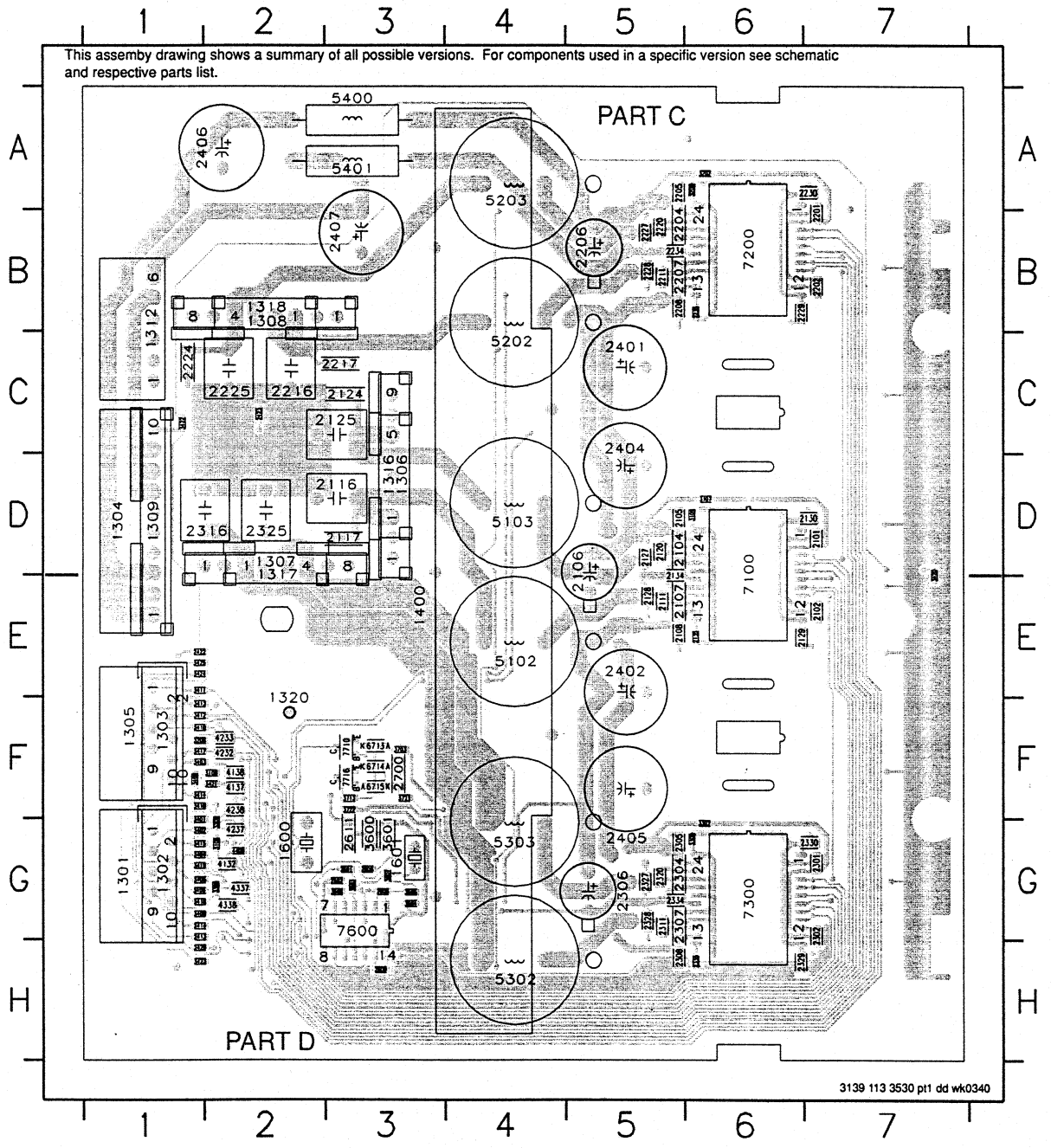
BOTTOM VIEW LAYOUT


This assemby drawing shows a summary of all possible versions. For components used in a specific version see schematic and respective parts list.
PART A
PART B
3139 113 3530 pt1 dd wk0340
1 2 3 4 5 6 7
A B C D E F G H
3203
3204
3104
3103
3304
3303
7607
3139 113 35301 1

2114	E2	4332	G6
2115	E2	4333	G6
2122	D2	6600	C4
2126	D2	7602	G5
2131	D1	7607	G5
2136	E1	7608	G5
2214	B2	F100	F7
2215	B2	F102	G7
2222	B2	F103	G7
2226	B2	F104	E5
2231	B1	F105	G7
2236	B1	F106	G7
2314	C2	F108	G7
2315	C2	F109	D5
2317	E6	F111	G7
2322	G2	F112	C5
2324	E6	F114	G7
2326	C2	F116	F7
2331	C1	F117	F7
2336	C1	F118	F6
2400	B7	F119	E7
2403	D7	F120	B6
2408	C7	F121	B6
2409	G7	F122	B6
2410	G7	F123	H5
2411	G7	F124	C7
2412	G7	F125	C5
2415	F7	F126	D7
2416	F7	F127	C7
2417	E7	F128	D6
2418	F7	F129	E6
2419	C7	F130	D6
2421	F7	F131	H4
2425	G7	F132	C7
2500	C4	F133	B7
2501	B4	F134	C5
2502	F6	F135	C5
2603	G5	F139	D5
2604	G5	F140	G7
2607	G5	F141	E7
2608	H5	F142	F6
3100	E3	F 143	C6
3101	E3		
3102	E3		
3103	D5		
3104	C5		
3105	D3		
3200	B3		
3201	B3		
3202	B3		
3203	C5		
3204	C7		
3205	B3		
3300	G3		
3301	G3		
3302	G3		
3303	E7		
3304	E5		
3305	G3		
3306	G7		
3407	G7		
3409	G7		
3426	F6		
3602	G5		
3605	G5		
3609	G5		
3610	H5		
3700	E4		
3701	D4		
3709	B4		
3712	A4		
3716	H4		
3718	G4		
4133	G6		

8-6

TOP VIEW LAYOUT

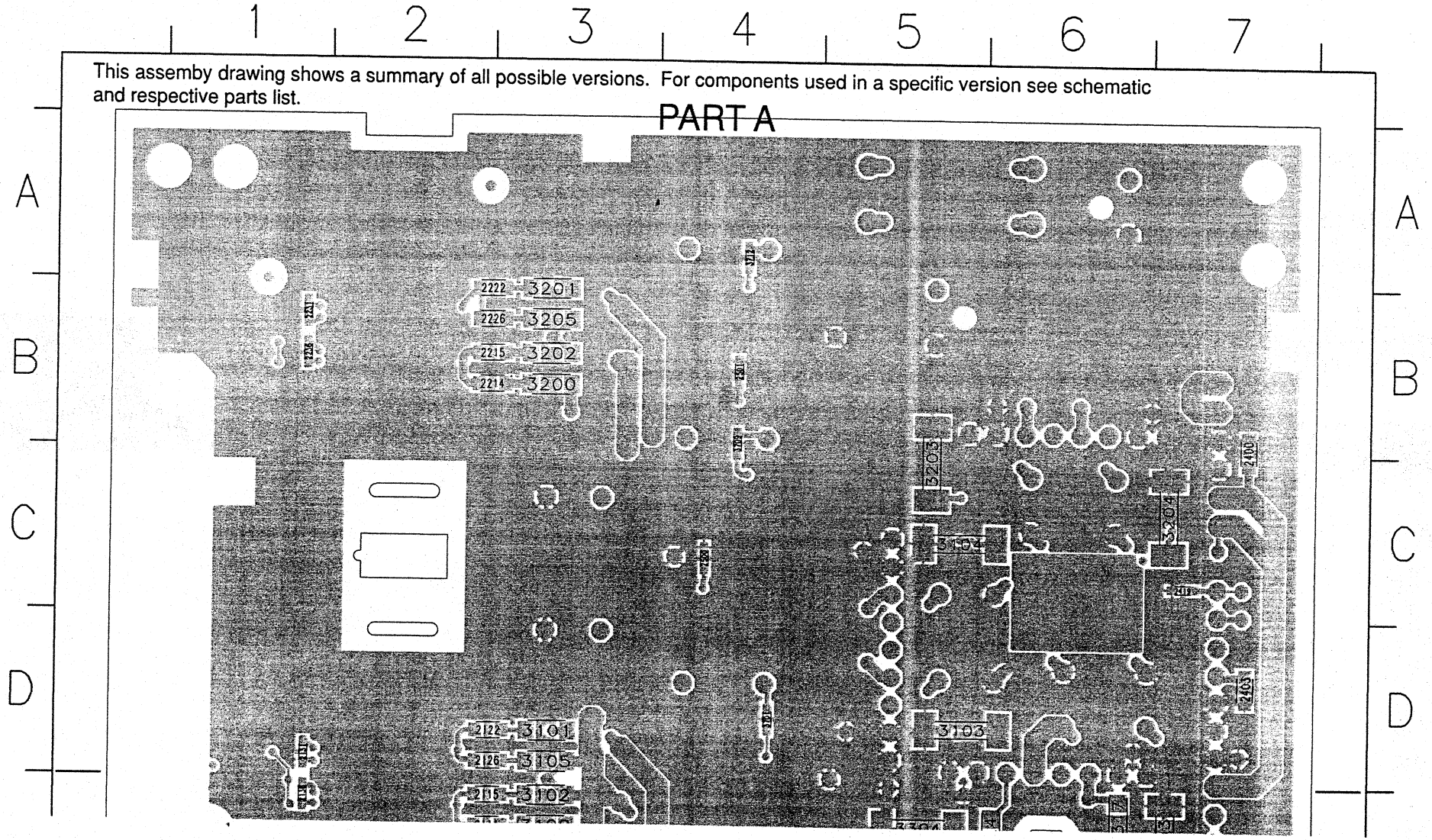

This assemby drawing shows a summary of all possible versions. For components used in a specific version see schematic and respective parts list.
PART C
PART D
3139 113 3530 pt1 dd wk0340

1301	G1	2404	D5	5202	B4
1302	G1	2405	F5	5203	A4
1303	F1	2406	A2	5302	H4
1304	D1	2407	B3	5303	G4
1305	F1	2413	G1	5400	A3
1306	D3	2414	G1	5401	A3
1307	D2	2420	H1	6713	F3
1308	B2	2422	E1	6714	F3
1309	D1	2423	C2	6715	F3
1312	B1	2600	H3	7100	D6
1316	D3	2601	G3	7200	B6
1317	D2	2602	G3	7300	G6
1318	B2	2605	G3	7600	G3
1320	F2	2606	G3	7710	F3
1400	D4	2611	G3	7716	F3
1600	G2	2700	F3		
1601	G3	3106	G2		
2101	D7	3107	D6		
2102	E7	3108	F2		
2104	D5	3109	D6		
2105	D5	3206	F1		
2106	D5	3207	A6		
2107	E5	3208	G2		
2108	E5	3209	A6		
2111	E5	3307	G6		
2116	D3	3308	G6		
2117	D3	3309	G6		
2120	D5	3400	F1		
2124	C3	3401	G1		
2125	C3	3402	G1		
2127	D5	3403	G1		
2128	E5	3404	G1		
2129	E6	3405	G1		
2130	D7	3406	G1		
2134	E5	3408	G1		
2135	E6	3410	E1		
2201	B7	3411	E1		
2202	B7	3412	E1		
2204	B5	3413	E1		
2205	A5	3414	E1		
2206	B5	3415	E1		
2207	B5	3416	E1		
2208	B5	3417	E1		
2211	B5	3418	G1		
2216	C2	3419	G1		
2217	C3	3420	D7		
2220	B5	3421	F2		
2224	C1	3422	C1		
2225	C2	3423	C1		
2227	B5	3424	E1		
2228	B5	3425	E1		
2229	B6	3600	G3		
2230	A7	3601	G3		
2234	B5	3603	G3		
2235	B6	3604	G3		
2301	G7	3606	G3		
2302	G7	3607	G3		
2304	G5	3608	G3		
2305	G5	3703	E3		
2306	G5	3713	E3		
2307	G5	3721	E3		
2308	H5	3722	E3		
2311	G5	4132	G2		
2316	D2	4137	G2		
2320	G5	4138	E2		
2325	D2	4232	E2		
2327	G5	4233	F2		
2328	G5	4237	G2		
2329	H6	4238	G2		
2330	G7	4337	G2		
2334	G5	4338	G2		
2335	H6	4400	G2		
2401	C5	5102	E4		
2402	E5	5103	D4		

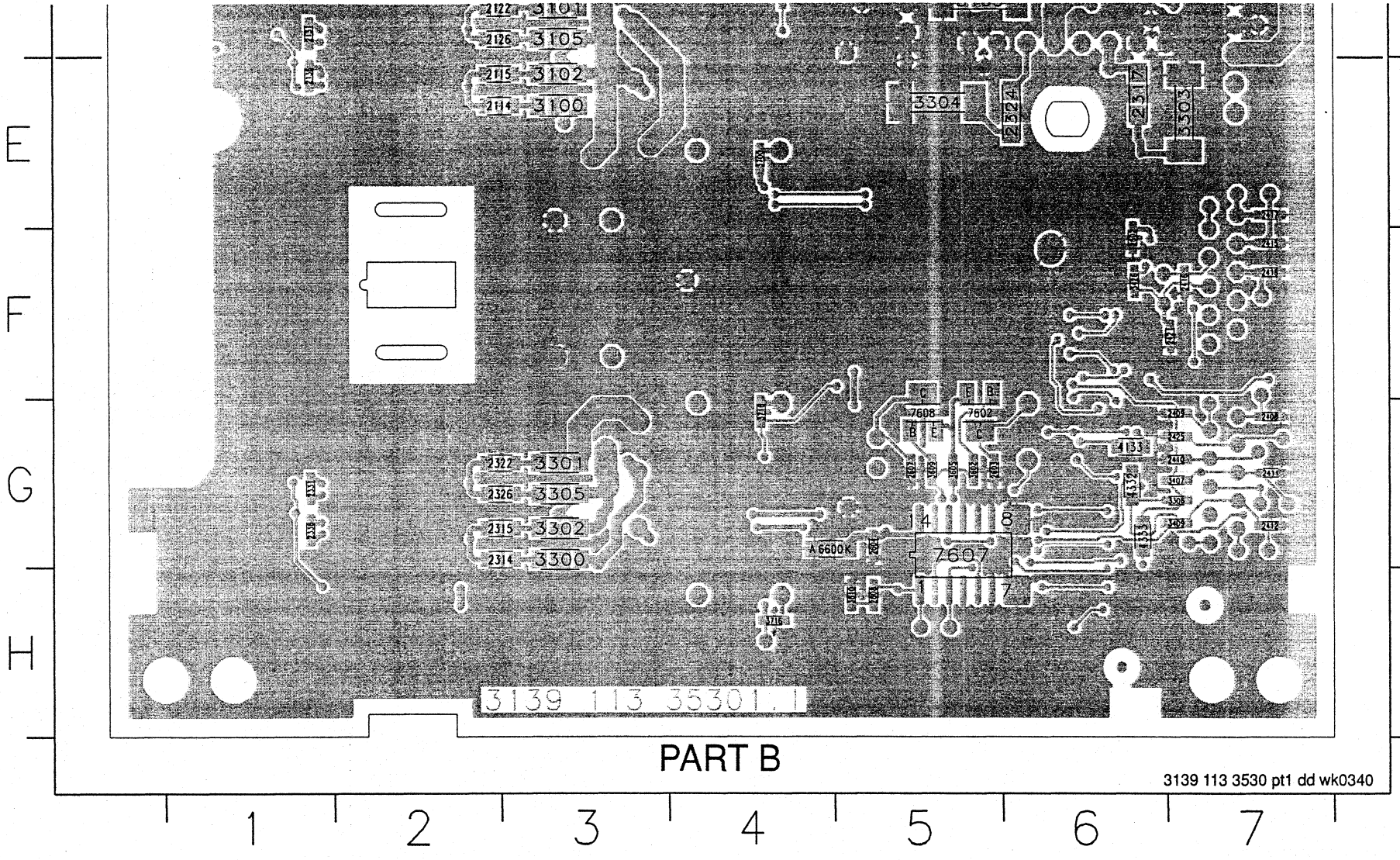
8-7

BOTTOM VIEW LAYOUT - PART A

This assemby drawing shows a summary of all possible versions. For components used in a specific version see schematic and respective parts list.



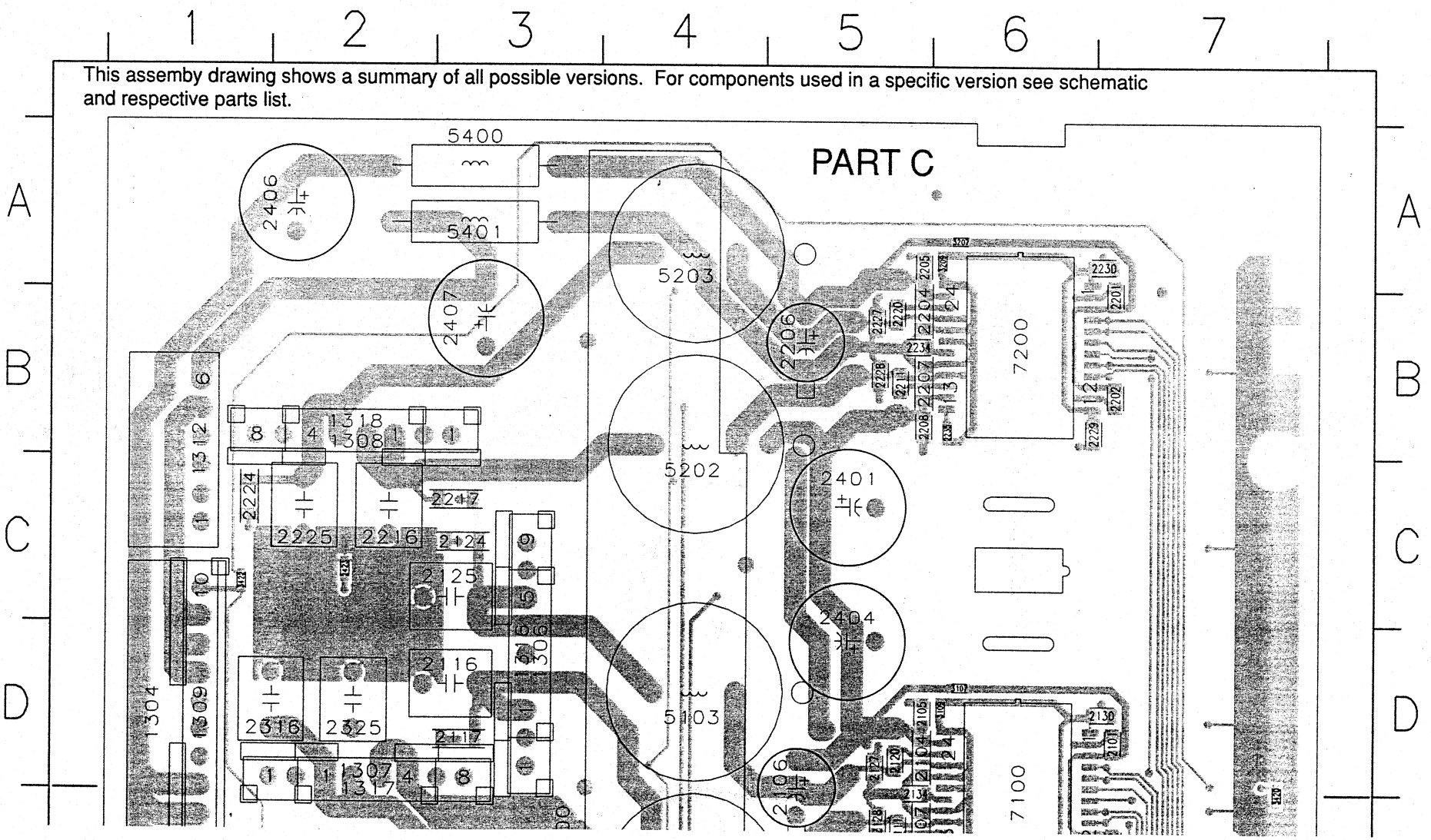
BOTTOM VIEW LAYOUT - PART B



8-9

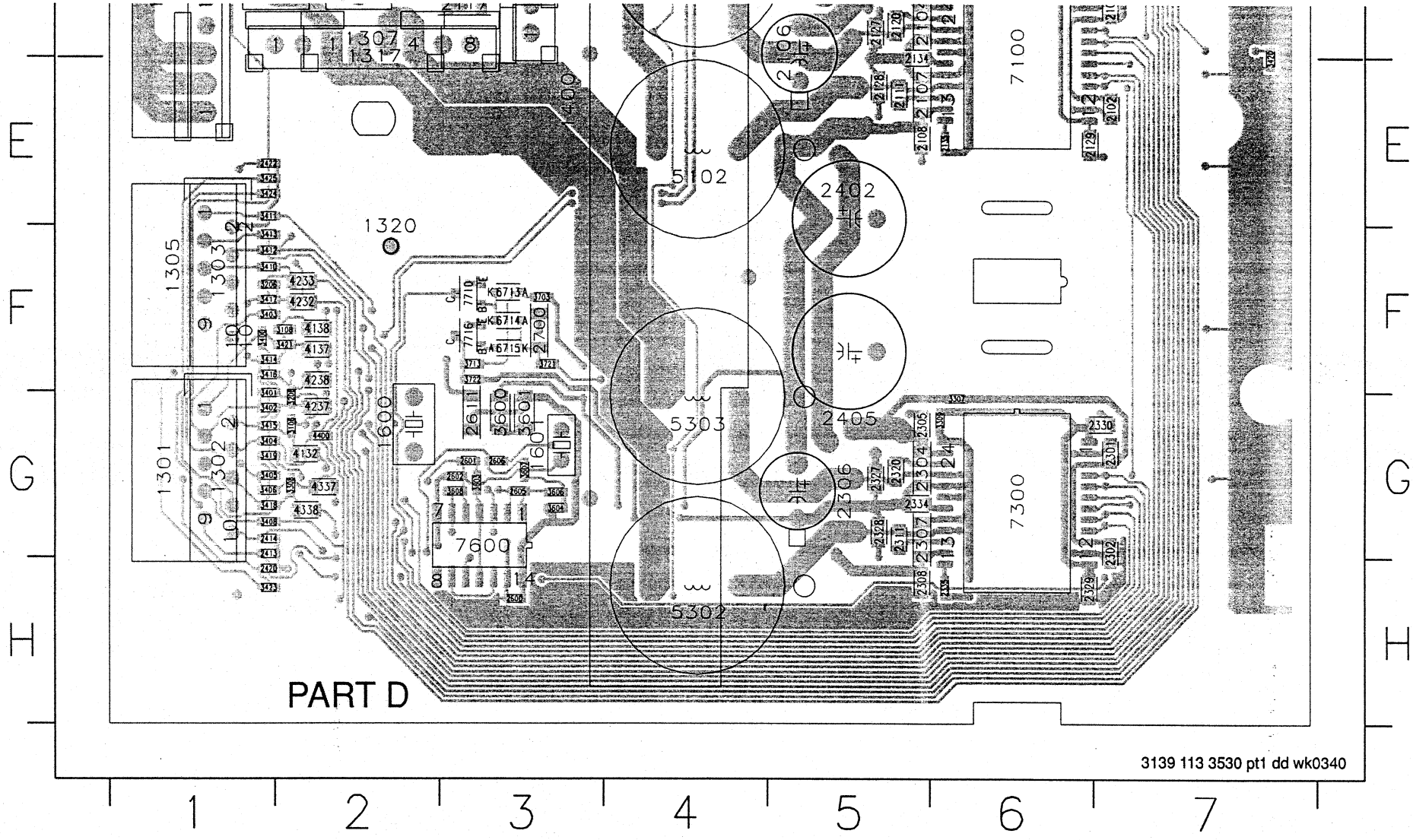
TOP VIEW LAYOUT - PART C

This assemby drawing shows a summary of all possible versions. For components used in a specific version see schematic and respective parts list.



8-10

TOP VIEW LAYOUT - PART D



ELECTRICAL PARTS LIST - AMPLIFIER BOARD

MISCELLANEOUS

0008	3104 211 29861	Spring 6 Channel
0010	3104 211 29881	Earth Spring
1302	4822 267 10729	Flex Connector 10P
1303	4822 267 10729	Flex Connector 10P
1600	2422 540 98514	RES CER 602kHz7 CSB600F1 B
1601	2422 540 98568	RES CER 700kHz CSBLA* B

CAPACITORS

2101	2222 580 15649	100nF 10% 50V
2102	2222 580 15649	100nF 10% 50V
2104	2222 601 55649	100nF 10% 100V
2105	2222 580 15649	100nF 10% 50V
2106	2020 021 91431	22uF 20% 100V
2107	2222 601 55649	100nF 10% 100V
2108	2222 580 15649	100nF 10% 50V
2111	4822 126 13188	15nF 5% 63V
2114	2238 600 15619	560pF 10% 100V
2115	2238 600 15619	560pF 10% 100V
2116	4822 121 51252	470nF 5% 63V
2117	2222 601 55649	100nF 10% 100V
2120	4822 126 13188	15nF 5% 63V
2122	2238 600 15619	560pF 10% 100V
2124	2222 601 55649	100nF 10% 100V
2125	4822 121 51252	470nF 5% 63V
2126	2238 600 15619	560pF 10% 100V
2127	2222 580 15649	100nF 10% 50V
2128	2222 580 15649	100nF 10% 50V
2129	2222 580 15649	100nF 10% 50V
2130	2222 580 15649	100nF 10% 50V
2131	4822 126 14241	330pF 50V
2134	2238 780 55654	220nF 10% 16V
2135	4822 126 14221	68pF 5% 50V
2136	4822 126 14241	330pF 50V
2201	2222 580 15649	100nF 10% 50V
2202	2222 580 15649	100nF 10% 50V
2204	2222 601 55649	100nF 10% 100V
2205	2222 580 15649	100nF 10% 50V
2206	2020 021 91431	22uF 20% 100V
2207	2222 601 55649	100nF 10% 100V
2208	2222 580 15649	100nF 10% 50V
2211	4822 126 13188	15nF 5% 63V
2214	2238 600 15619	560pF 10% 100V
2215	2238 600 15619	560pF 10% 100V
2216	4822 121 51252	470nF 5% 63V
2217	2222 601 55649	100nF 10% 100V
2220	4822 126 13188	15nF 5% 63V
2222	2238 600 15619	560pF 10% 100V
2224	2222 601 55649	100nF 10% 100V
2225	4822 121 51252	470nF 5% 63V
2226	2238 600 15619	560pF 10% 100V
2227	2222 580 15649	100nF 10% 50V
2228	2222 580 15649	100nF 10% 50V
2229	2222 580 15649	100nF 10% 50V
2230	2222 580 15649	100nF 10% 50V
2231	4822 126 14241	330pF 50V
2234	2238 780 55654	220nF 10% 16V
2235	4822 126 14221	68pF 5% 50V
2236	4822 126 14241	330pF 50V
2301	2222 580 15649	100nF 10% 50V
2302	2222 580 15649	100nF 10% 50V
2304	2222 601 55649	100nF 10% 100V
2305	2222 580 15649	100nF 10% 50V
2306	2020 021 91431	22uF 20% 100V
2307	2222 601 55649	100nF 10% 100V
2308	2222 580 15649	100nF 10% 50V
2311	4822 126 13188	15nF 5% 63V
2314	2238 600 15619	560pF 10% 100V
2315	2238 600 15619	560pF 10% 100V
2316	4822 121 51252	470nF 5% 63V
2317	2222 601 55649	100nF 10% 100V
2320	4822 126 13188	15nF 5% 63V
2322	2238 600 15619	560pF 10% 100V
2324	2222 601 55649	100nF 10% 100V
2325	4822 121 51252	470nF 5% 63V
2326	2238 600 15619	560pF 10% 100V
2327	2222 580 15649	100nF 10% 50V
2328	2222 580 15649	100nF 10% 50V
2329	2222 580 15649	100nF 10% 50V
2330	2222 580 15649	100nF 10% 50V
2331	4822 126 14241	330pF 50V
2334	2238 780 55654	220nF 10% 16V
2335	4822 126 14221	68pF 5% 50V
2336	4822 126 14241	330pF 50V
2400	2222 580 15649	100nF 10% 50V
2401	4822 124 80062	470uF 20% 35V
2402	4822 124 80062	470uF 20% 35V
2403	2222 580 15649	100nF 10% 50V
2404	4822 124 80062	470uF 20% 35V
2405	4822 124 80062	470uF 20% 35V
2406	4822 123 14026	470uF 20% 35V
2407	4822 123 14026	470uF 20% 35V
2408	5322 126 11578	1nF 10% 50V
2409	5322 126 11578	1nF 10% 50V
2410	5322 126 11578	1nF 10% 50V
2411	5322 126 11578	1nF 10% 50V
2412	5322 126 11578	1nF 10% 50V
2413	5322 126 11578	1nF 10% 50V
2414	5322 126 11578	1nF 10% 50V
2415	5322 126 11578	1nF 10% 50V
2416	5322 126 11578	1nF 10% 50V
2417	5322 126 11578	1nF 10% 50V
2418	5322 126 11578	1nF 10% 50V
2419	2238 586 59812	100nF +80/-20% 50V
2420	5322 126 11578	1nF 10% 50V

8-11

ELECTRICAL PARTS LIST - AMPLIFIER BOARD

2421	5322 126 11578	1nF 10% 50V
2422	5322 126 11578	1nF 10% 50V
2423	2238 586 59812	100nF +80/-20% 50V
2425	5322 126 11578	1nF 10% 50V
2500	2238 586 59812	100nF +80/-20% 50V
2501	2238 586 59812	100nF +80/-20% 50V
2502	2238 586 59812	100nF +80/-20% 50V
2600	2238 586 59812	100nF +80/-20% 50V
2602	2020 552 94427	100pF 5% 50V
2603	2020 552 94427	100pF 5% 50V
2604	2238 586 59812	100nF +80/-20% 50V
2605	4822 126 13881	470pF 5% 50V
2606	5322 126 11578	1nF 10% 50V
2607	2020 552 94427	100pF 5% 50V
2608	2020 552 94427	100pF 5% 50V
2611	2020 552 96507	10uF +80/-20% 10V
2700	2020 552 96507	10uF +80/-20% 10V

RESISTORS

3100	4822 051 10568	5R6 5% 0,25W
3101	4822 051 10568	5R6 5% 0,25W
3102	4822 051 10568	5R6 5% 0,25W
3103	2322 762 60229	RST SM 2512 PRC221 22R 5%
3104	2322 762 60229	RST SM 2512 PRC221 22R 5%
3105	4822 051 10568	5R6 5% 0,25W
3107	4822 051 30109	10R 5% 0,062W
3109	4822 051 30109	10R 5% 0,062W
3200	4822 051 10568	5R6 5% 0,25W
3201	4822 051 10568	5R6 5% 0,25W
3202	4822 051 10568	5R6 5% 0,25W
3203	2322 762 60229	RST SM 2512 PRC221 22R 5%
3204	2322 762 60229	RST SM 2512 PRC221 22R 5%
3205	4822 051 10568	5R6 5% 0,25W
3207	4822 051 30109	10R 5% 0,062W
3209	4822 051 30109	10R 5% 0,062W
3300	4822 051 10568	5R6 5% 0,25W
3301	4822 051 10568	5R6 5% 0,25W
3302	4822 051 10568	5R6 5% 0,25W
3303	2322 762 60229	RST SM 2512 PRC221 22R 5%
3304	2322 762 60229	RST SM 2512 PRC221 22R 5%
3305	4822 051 10568	5R6 5% 0,25W
3307	4822 051 30109	10R 5% 0,062W
3309	4822 051 30109	10R 5% 0,062W
3401	4822 051 30562	5k6 5% 0,063W
3404	4822 051 30221	220R 5% 0,062W
3405	4822 051 30562	5k6 5% 0,063W
3408	4822 051 30221	220R 5% 0,062W
3410	4822 051 30562	5k6 5% 0,063W
3411	4822 051 30562	5k6 5% 0,063W
3412	4822 051 30221	220R 5% 0,062W
3413	4822 051 30562	5k6 5% 0,063W
3414	4822 051 30562	5k6 5% 0,063W
3415	4822 051 30562	5k6 5% 0,063W
3420	2322 615 23103	NTC SM 0603 0W125 10k 5%
3420	2322 615 33103	NTC SM 0603 0W125 10k 5%
3421	4822 051 30562	5k6 5% 0,063W
3422	4822 051 30101	100R 5% 0,062W
3423	4822 051 30562	5k6 5% 0,063W
3424	4822 051 30562	5k6 5% 0,063W
3425	4822 051 30562	5k6 5% 0,063W
3426	4822 051 30562	5k6 5% 0,063W
3600	4822 051 10821	820R 2% 0,25W
3601	4822 051 10821	820R 2% 0,25W
3602	4822 117 13632	100k 1% 0,62W
3604	4822 051 30103	10k 5% 0,062W
3605	4822 051 30682	6k8 5% 0,062W
3606	4822 117 13632	100k 1% 0,62W
3607	4822 051 30102	1k 5% 0,062W
3608	4822 051 30105	1M 5% 0,062W
3609	4822 117 13632	100k 1% 0,62W
3610	4822 117 12139	22R 5% 0,062W
3700	4822 117 12925	47k 1% 0,063W
3701	4822 117 12925	47k 1% 0,063W
3703	4822 117 12925	47k 1% 0,063W
3709	4822 117 12925	47k 1% 0,063W
3712	4822 117 12925	47k 1% 0,063W
3713	4822 051 30103	10k 5% 0,062W
3716	4822 117 12925	47k 1% 0,063W
3718	4822 117 12925	47k 1% 0,063W
3721	4822 051 30103	10k 5% 0,062W
3722	4822 051 30103	10k 5% 0,062W
4132	4822 126 14583	470nF 10% 16V
4133	4822 126 14583	470nF 10% 16V
4137	4822 126 14583	470nF 10% 16V
4138	4822 126 14583	470nF 10% 16V
4232	4822 126 14583	470nF 10% 16V
4233	4822 126 14583	470nF 10% 16V
4237	4822 126 14583	470nF 10% 16V
4238	4822 126 14583	470nF 10% 16V
4332	4822 126 14583	470nF 10% 16V
4333	4822 126 14583	470nF 10% 16V
4337	4822 126 14583	470nF 10% 16V
4338	4822 126 14583	470nF 10% 16V

COILS & FILTERS

5102	2422 536 00496	INDFXD 16RHBP S 22U PM10
5102	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5103	2422 536 00496	INDFXD 16RHBP S 22U PM10
5103	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5202	2422 536 00496	INDFXD 16RHBP S 22U PM10
5202	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5203	2422 536 00496	INDFXD 16RHBP S 22U PM10
5203	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5302	2422 536 00496	INDFXD 16RHBP S 22U PM10

8-12

ELECTRICAL PARTS LIST - AMPLIFIER BOARD

COILS & FILTERS

5302	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5303	2422 536 00496	INDFXD 16RHBP S 22U PM10
5303	2422 536 00822	INDFXD 16RHBP S 22U P10M20
5400	4822 157 11411	FXDIND BEAD 100MHz 80R
5401	4822 157 11411	FXDIND BEAD 100MHz 80R

DIODES

6600	3198 020 55680	BZX384-C5V6
6713	4822 130 11397	BAS316
6714	4822 130 11397	BAS316
6715	4822 130 11397	BAS316

TRANSISTORS & INTEGRATED CIRCUITS

7100	9352 705 74518	IC SM TDA8920TH/N1
7200	9352 705 74518	IC SM TDA8920TH/N1
7300	9352 705 74518	IC SM TDA8920TH/N1
7600	5322 209 11517	IC SM 74HCU04D
7602	5322 130 60159	BC847B
7607	5322 209 14477	IC SM HEF4013BT
7608	4822 130 60373	BC857B
7710	5322 130 60159	BC847B
7716	4822 130 60373	BC857B

Note : Only the parts mentioned in this list are normal service spare parts.

SPEAKER CONNECTOR BOARD

TABLE OF CONTENTS

Electrical parts list 9-1
Circuit Diagram 9-2
Component and Chip layouts 9-3

ELECTRICAL PARTS LIST - SPEAKER CONNECTOR BOARD

MISCELLANEOUS

1711	2422 025 18178	Speaker Socket 6P Purple/Blue/Grey
1712	2422 025 18179	Speaker Socket 6P White/Green/Red

CAPACITORS

2202	5322 126 11583	10nF 10% 50V
2203	5322 126 11583	10nF 10% 50V
2204	5322 126 11583	10nF 10% 50V
2205	5322 126 11583	10nF 10% 50V
2206	5322 126 11583	10nF 10% 50V
2207	5322 126 11583	10nF 10% 50V
2208	5322 126 11583	10nF 10% 50V
2209	5322 126 11583	10nF 10% 50V
2210	5322 126 11583	10nF 10% 50V
2211	5322 126 11583	10nF 10% 50V
2212	5322 126 11583	10nF 10% 50V
2213	5322 126 11583	10nF 10% 50V

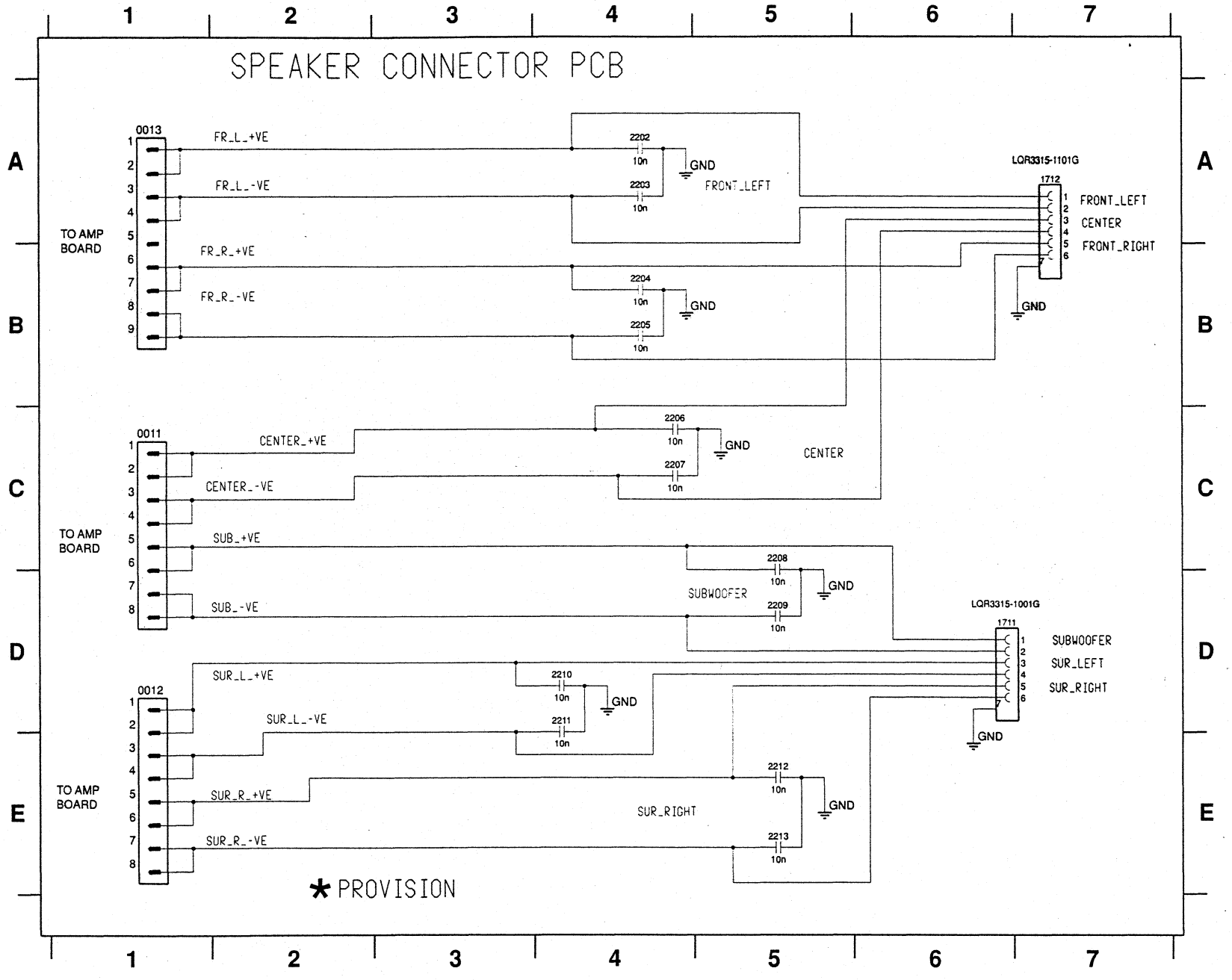
RESISTORS

4221	4822 051 20008	0R Jumper 0805
4222	4822 051 20008	0R Jumper 0805
4223	4822 051 20008	0R Jumper 0805
4224	4822 051 20008	0R Jumper 0805
4225	4822 051 20008	0R Jumper 0805

Note : Only the parts mentioned in this list are normal service spare parts.

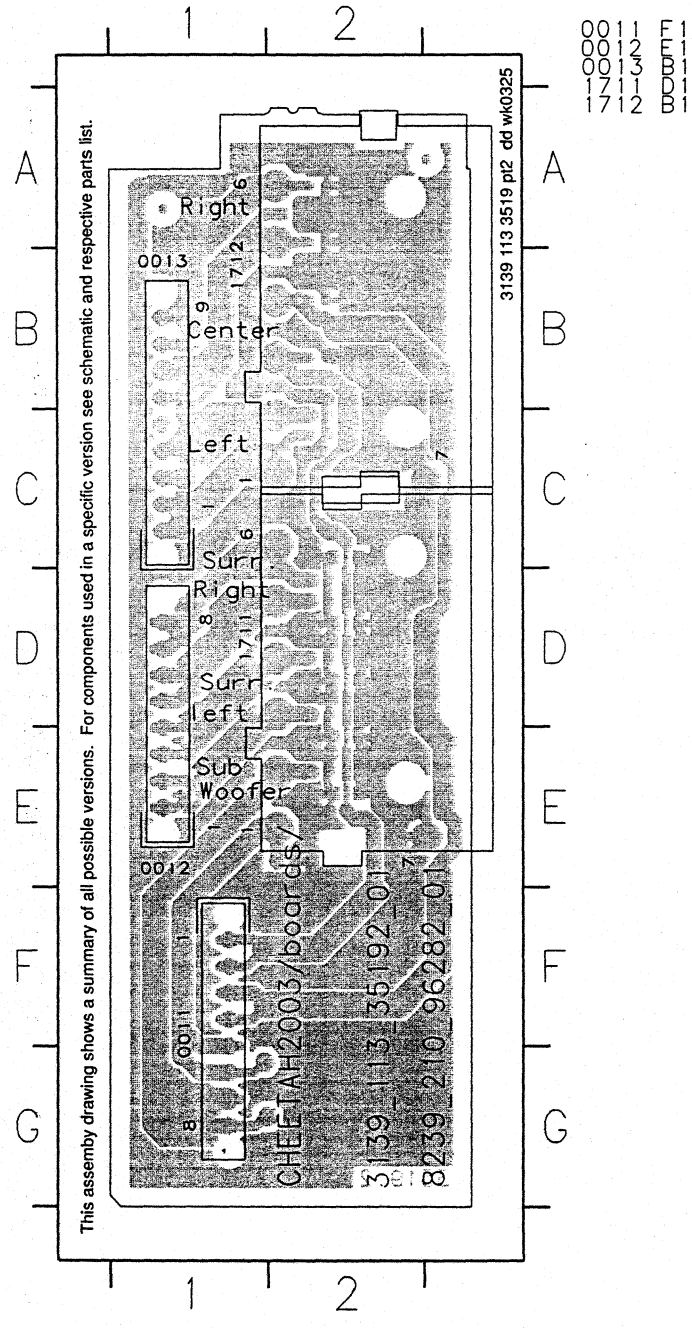
9-2

SPEAKER CONNECTOR BOARD - CIRCUIT DIAGRAM

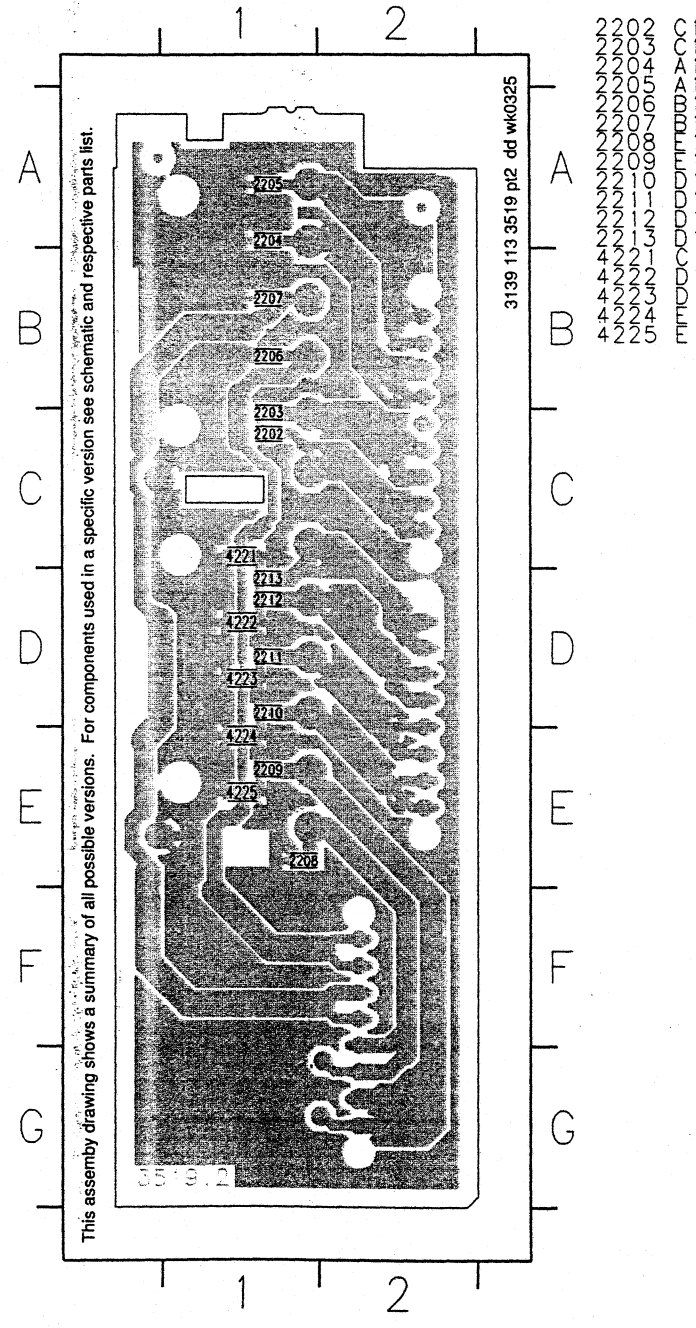


0011 C1
0012 D1
0013 A1
1711 D6
1712 A7
2202 A4
2203 A4
2204 B4
2205 B4
2206 C4
2207 C4
2208 C5
2209 D5
2210 D4
2211 D4
2212 E5
2213 E5

SPEAKER CONNECTOR BOARD - COMPONENT LAYOUT



SPEAKER CONNECTOR BOARD - CHIP LAYOUT



MODULE SD6.1 RX

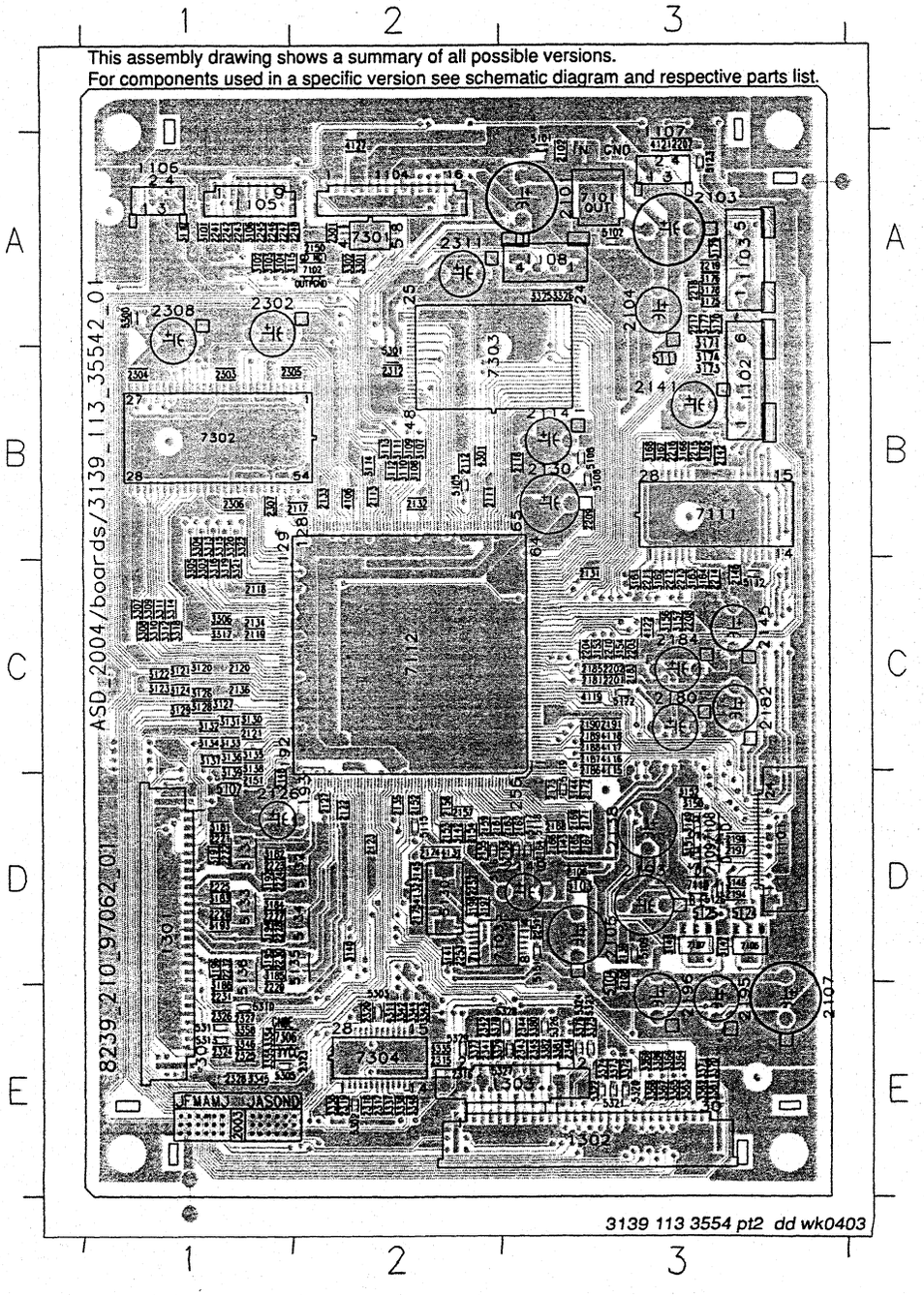
TABLE OF CONTENTS

SD6.1 RX Board - Top View Layout 10-2
SD6.1 RX Board - Bottom View Layout 10-3
SD6.1 RX Board - Circuit Diagram (Part 1) 10-4
SD6.1 RX Board - Circuit Diagram (Part 2) 10-5
Exploded View & parts list 10-6
Electrical parts list 10-7

10-1

10-2

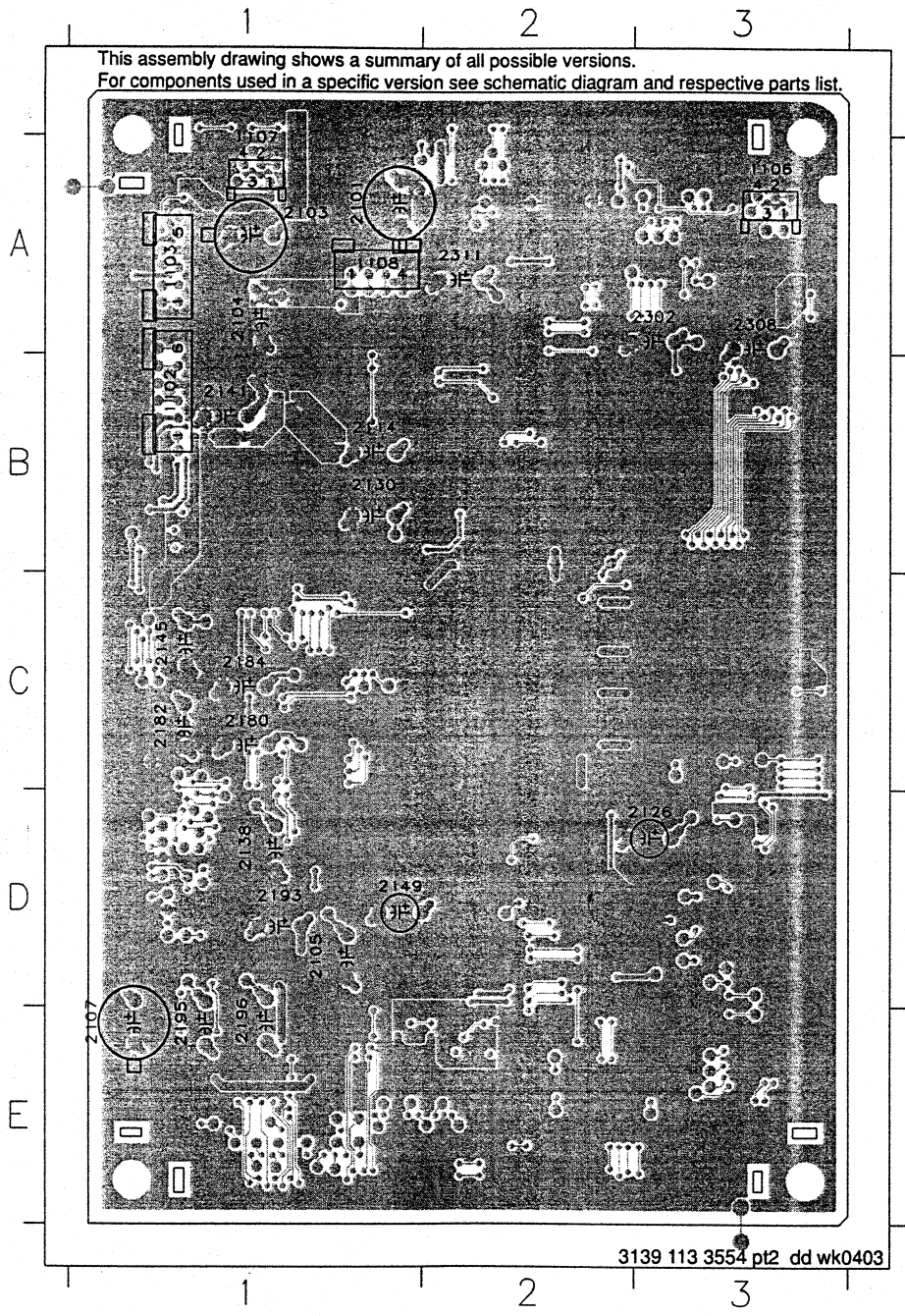
SD6.1 RX BOARD - TOP VIEW LAYOUT


This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram and respective parts list.
ASD_2004/boards/3139_113_35542_01
8239_210_97062_01
3139 113 3554 pt2 dd wk0403

1101	D3	2169	D3	2304	B1	3147	D3	3336	E2	5124	D3				
1102	B3	2171	D3	2305	B2	3148	D3	3337	E2	5125	D3				
1103	A3	2172	D3	2306	B1	3149	D3	3338	E2	5126	D3				
1104	A2	2173	D3	2307	B1	3150	D3	3342	E2	5130	D2				
1105	A1	2174	D2	2308	A1	3151	D3	3343	E2	5131	D1				
1106	A1	2175	D2	2311	A2	3152	D3	3344	E2	5132	D2				
1107	A3	2180	C3	2312	B2	3153	C3	3345	E1	5133	D1				
1108	A3	2181	C3	2315	E2	3154	C3	3346	E1	5134	D2				
1301	D1	2182	C3	2316	E2	3156	C3	3348	E2	5135	D2				
1302	E3	2183	C3	2317	E2	3157	C3	3354	E1	5136	D1				
1303	E3	2184	C3	2318	E2	3161	C3	3355	E1	5151	D3				
2101	A3	2185	C3	2319	E2	3162	C3	3358	E1	5300	A1				
2102	A3	2186	C3	2320	E2	3163	C3	3361	E3	5301	B2				
2103	A3	2187	C3	2323	E2	3164	C3	3362	E3	5302	E2				
2104	A3	2188	C3	2324	E1	3165	B3	3363	E3	5303	E2				
2105	D3	2189	C3	2325	E1	3166	B3	3364	E3	5305	E1				
2106	D3	2190	C3	2326	E1	3167	B3	3365	E3	5310	E1				
2107	E3	2191	C3	2327	E1	3168	B3	3366	E3	5311	E1				
2108	D3	2193	D3	2328	E1	3170	A3	3367	E3	5313	E1				
2111	B2	2194	D3	2341	E2	3171	B3	3368	E3	5320	E3				
2112	B2	2195	E3	2342	E2	3173	B3	3369	E3	5321	E3				
2113	B2	2196	E3	2343	E3	3174	B3	3370	E3	5322	E3				
2114	B3	2197	D3	2344	E3	3175	A3	3371	E3	5323	E3				
2116	B3	2198	D3	2345	E3	3176	A3	3372	E3	5324	E3				
2117	B2	2201	C3	2346	E3	3177	A3	3373	E3	5326	E3				
2118	C1	2202	C3	3101	A1	3178	A3	3374	E3	5327	E2				
2119	C1	2203	C3	3102	A1	3179	A3	3375	E3	5328	E3				
2120	C1	2204	C3	3103	A1	3181	D1	3376	E3	5329	E2				
2121	C1	2207	A3	3104	A1	3182	D1	3377	E2	7101	A3				
2122	D2	2208	C3	3106	A1	3183	D1	3378	E2	7102	A2				
2123	D2	2209	B3	3107	B2	3184	D1	3379	E2	7103	D2				
2126	D1	2210	C3	3108	B2	3185	D1	3380	E3	7106	D3				
2127	D2	2211	C3	3109	B2	3186	E1	3381	E3	7107	D3				
2130	B3	2212	C3	3110	B2	3191	D1	3382	E3	7108	D3				
2131	C3	2213	C3	3111	B2	3192	D1	3386	E3	7109	D3				
2132	B2	2214	C3	3112	B2	3193	D1	4106	B2	7110	D3				
2133	B2	2215	B3	3113	B2	3194	D1	4115	C3	7111	B3				
2134	C1	2216	B3	3114	B2	3195	D1	4116	C3	7112	C2				
2135	D2	2217	A3	3115	A2	3196	D1	4117	C3	7301	A2				
2136	C1	2218	A3	3117	A1	3197	D2	4118	C3	7302	B1				
2138	D3	2219	A3	3120	C1	3198	D2	4119	C3	7303	B2				
2139	D3	2221	D1	3121	C1	3301	A2	4121	A3	7304	E2				
2141	B3	2222	D1	3122	C1	3302	A2	4122	C3	7306	E1				
2142	B3	2223	D1	3123	C1	3303	C1	4127	A2						
2145	C3	2224	D1	3124	C1	3304	B1	4131	D2						
2146	C3	2225	D1	3126	C1	3305	C1	4132	D2						
2148	D1	2226	D1	3127	C1	3306	C1	4301	B2						
2149	D3	2227	D1	3128	C1	3307	C1	4311	E2						
2150	A2	2228	D1	3129	C1	3308	C1	5101	A3						
2151	D1	2229	E1	3130	C1	3309	C1	5102	A3						
2152	D2	2230	D1	3131	C1	3310	C1	5103	D3						
2153	D2	2231	E1	3132	C1	3311	C1	5104	E3						
2154	D2	2232	D1	3133	C1	3312	C1	5105	B2						
2155	D2	2241	A1	3134	C1	3313	B1	5106	B3						
2156	D2	2242	A1	3135	C1	3314	C1	5107	D1						
2157	D2	2243	A1	3136	C1	3315	B1	5108	B3						
2158	D3	2245	A1	3137	C1	3316	C1	5109	D3						
2159	D2	2246	A1	3138	C1	3317	C1	5111	B3						
2161	D2	2247	A1	3139	D1	3318	C1	5112	C3						
2162	D3	2248	A2	3140	D2	3319	C1	5115	D2						
2163	D3	2251	D3	3141	D2	3320	B1	5116	D2						
2164	D3	2252	D2	3142	D2	3321	C1	5117	D3						
2165	D3	2253	D2	3143	D3	3322	B1	5118	D3						
2166	D3	2301	A2	3144	D3	3325	A3	5119	D3						
2167	D3	2302	A1	3145	D2	3326	A3	5122	C3						
2168	D3	2303	B1	3146	D3	3335	E2	5123	A3						

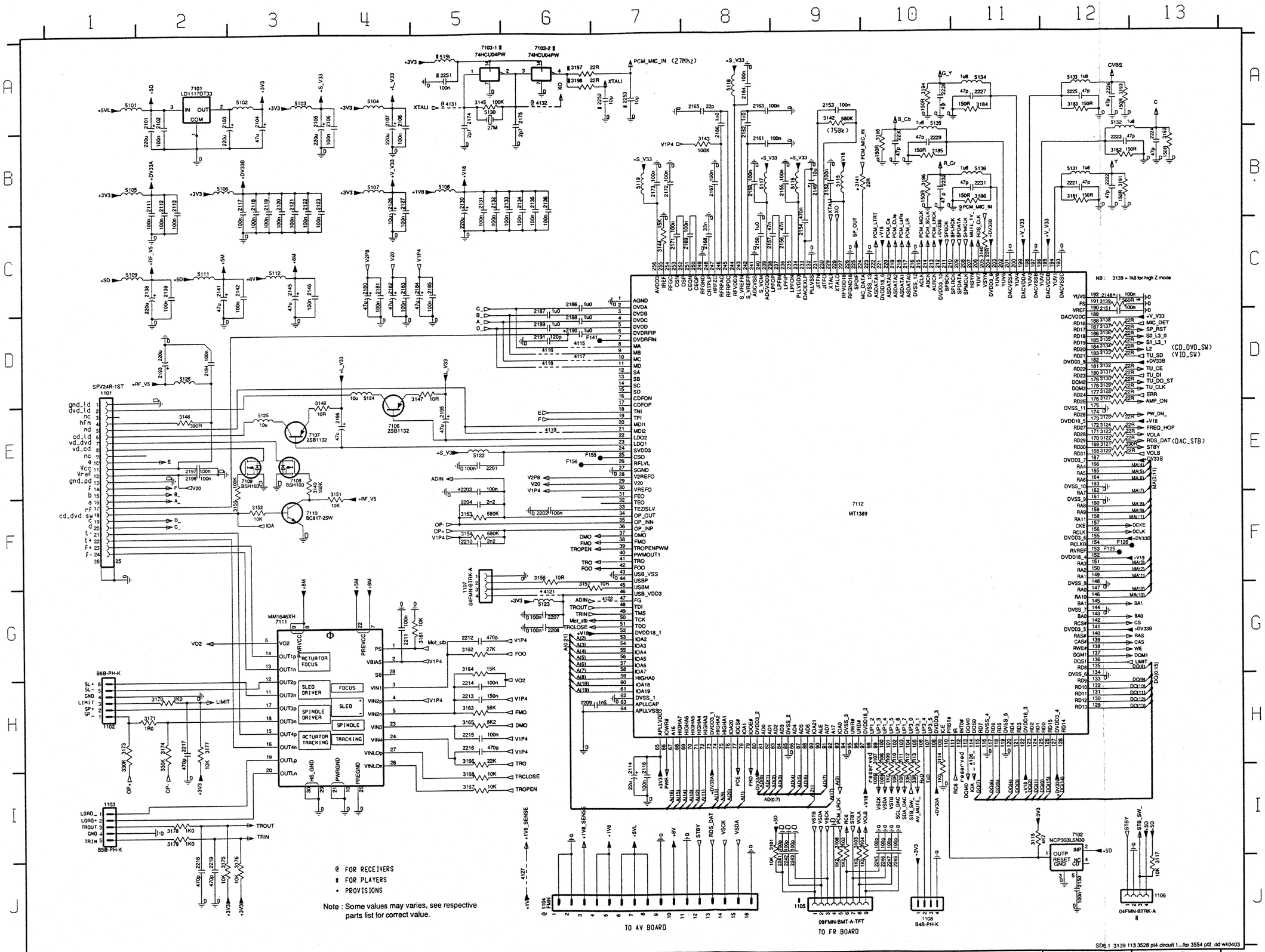
10-3

SD6.1 RX BOARD - BOTTOM VIEW LAYOUT


1 2 3
A
B
C
D
E
This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram and respective parts list.
3139 113 3554 pt2 dd wk0403

1102	B1
1103	A1
1106	A3
1107	A1
1108	A1
2101	A1
2103	A1
2104	A1
2105	D1
2107	E1
2114	B1
2126	D3
2130	B1
2138	D1
2141	B1
2145	C1
2149	D1
2180	C1
2182	C1
2184	C1
2193	D1
2195	E1
2196	E1
2302	A3
2308	A3
2311	A2

SD6.1 RX BOARD - CIRCUIT DIAGRAM (PART 1)



10-5

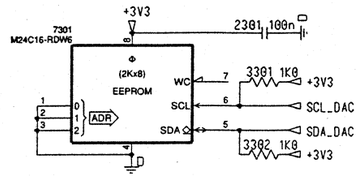
SD6.1 RX BOARD - CIRCUIT DIAGRAM (PART 2)

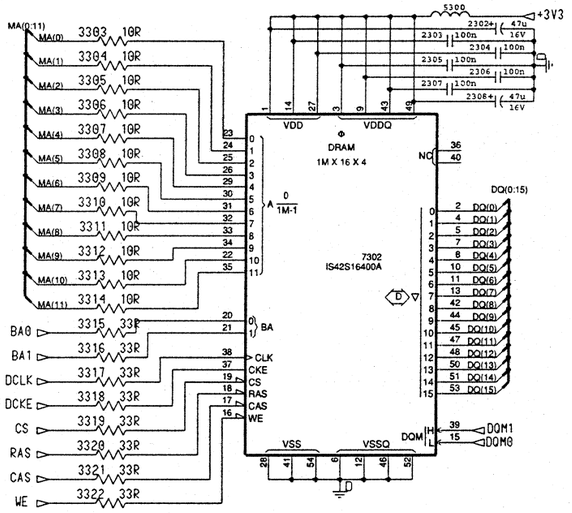
@ For receiver

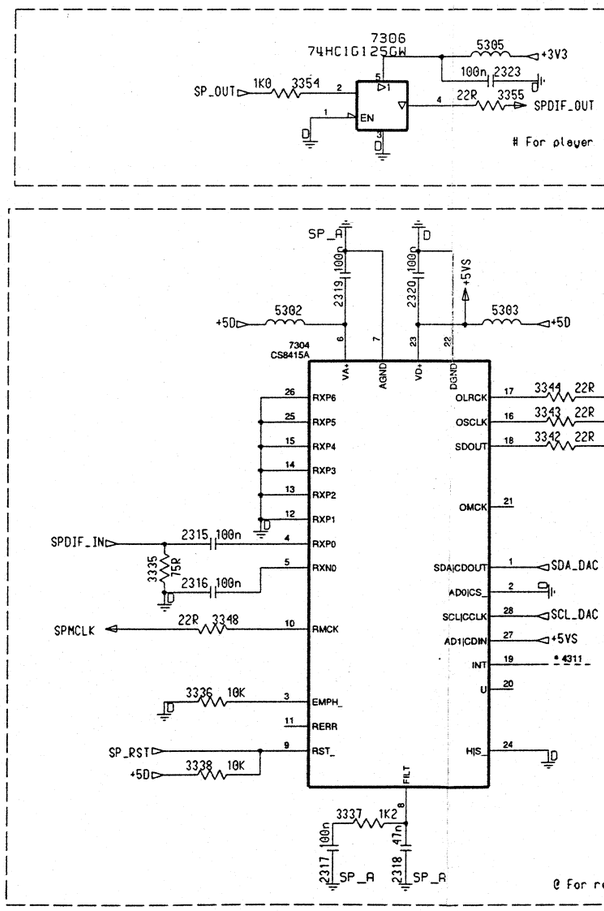
For player

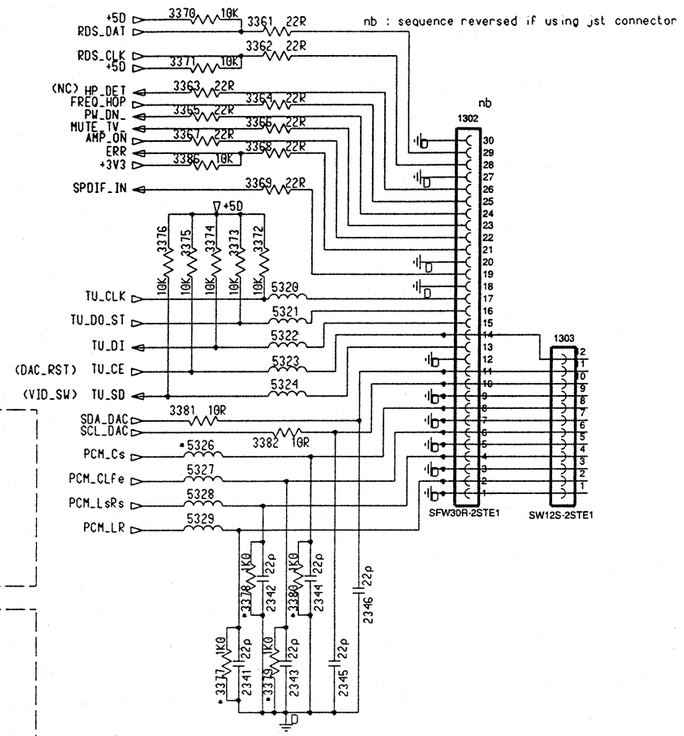
• Provision

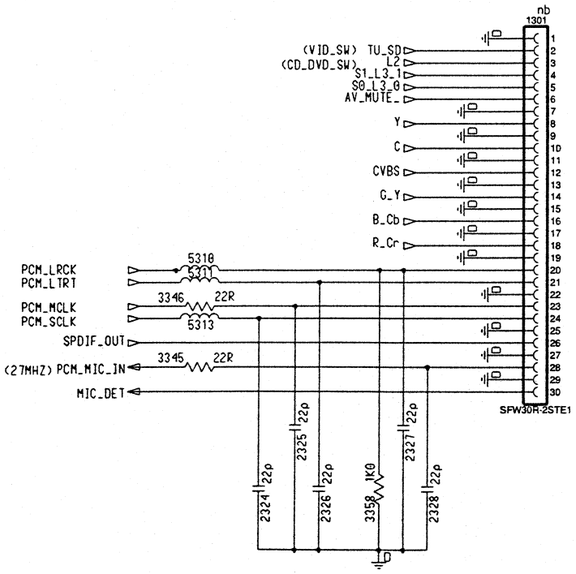
Note : Some values may varies, see respective parts list for correct value.

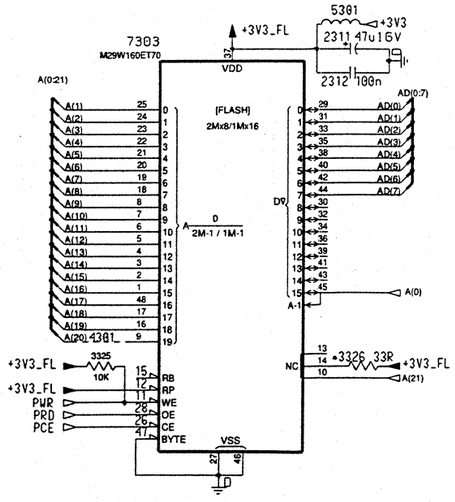




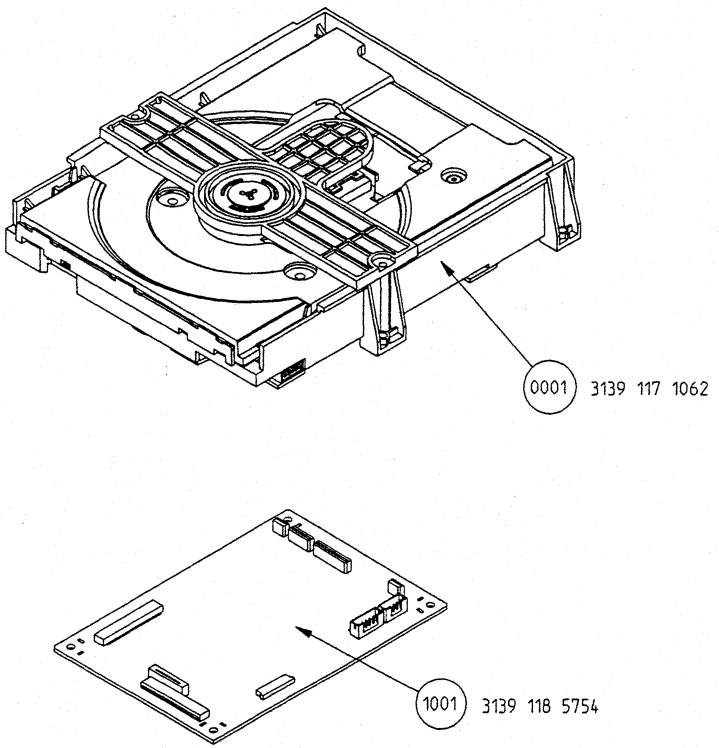






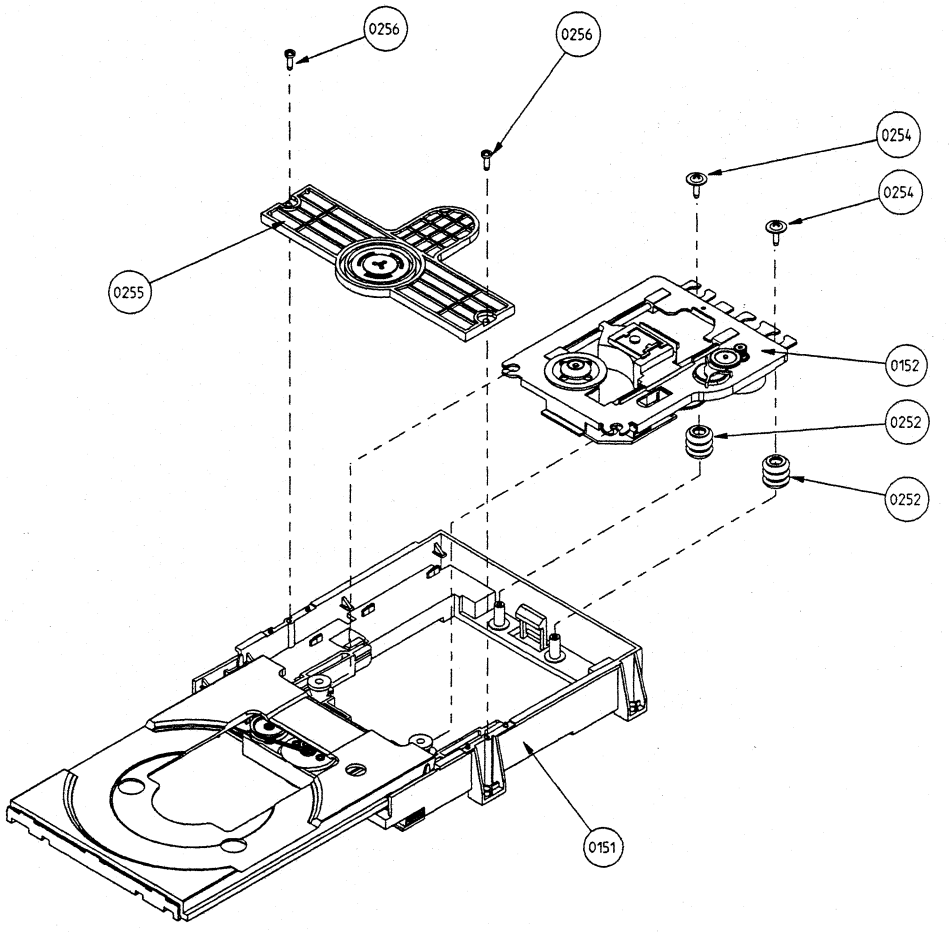


EXPLODED VIEW - MODULE SD6.1 RX



Module SD6.1 RX_3139 117 10651_dd wk0406

EXPLODED VIEW - MODULE DVD LOADER ASA+DV34



Module DVD Loader ASA+DV34_3139 117 10621_dd wk0406

MODULE SD6.1 RX PARTS LIST

0001	3139 117 10621	Module DVD Loader ASA+DV34
1001	3139 118 57541	PCBAS SD6.1 RX
1101	3139 111 03851	FFC Foil 24P/140/24P AD 0.5MMP

Note : Only the parts mentioned in this list are normal service spare parts.

MISCELLANEOUS

1101	2422 025 17529	Flex Connector 24P
1104	2422 025 16388	Flex Connector 16P
1105	2422 025 17768	Flex Connector 9P
1301	2422 025 17451	Flex Connector 30P
1302	2422 025 17451	Flex Connector 30P

CAPACITORS

2101	3198 029 12210	220uF 20% 10V
2102	2238 586 59812	100nF +80/-20% 50V
2103	3198 029 12210	220uF 20% 10V
2104	4822 124 80231	47uF 20% 16V
2105	4822 124 40196	220uF 20% 16V
2106	2238 586 59812	100nF +80/-20% 50V
2107	3198 029 12210	220uF 20% 10V
2108	2238 586 59812	100nF +80/-20% 50V
2111	2238 586 59812	100nF +80/-20% 50V
2112	2238 586 59812	100nF +80/-20% 50V
2113	2238 586 59812	100nF +80/-20% 50V
2114	4822 124 81151	22uF 50V
2116	2238 586 59812	100nF +80/-20% 50V
2117	2238 586 59812	100nF +80/-20% 50V
2118	2238 586 59812	100nF +80/-20% 50V
2119	2238 586 59812	100nF +80/-20% 50V
2120	2238 586 59812	100nF +80/-20% 50V
2121	2238 586 59812	100nF +80/-20% 50V
2122	2238 586 59812	100nF +80/-20% 50V
2123	2238 586 59812	100nF +80/-20% 50V
2126	4822 124 21732	10uF 20% 25V
2127	2238 586 59812	100nF +80/-20% 50V
2130	4822 124 40196	220uF 20% 16V
2131	2238 586 59812	100nF +80/-20% 50V
2132	2238 586 59812	100nF +80/-20% 50V
2133	2238 586 59812	100nF +80/-20% 50V
2134	2238 586 59812	100nF +80/-20% 50V
2135	2238 586 59812	100nF +80/-20% 50V
2136	2238 586 59812	100nF +80/-20% 50V
2138	4822 124 40196	220uF 20% 16V
2139	2238 586 59812	100nF +80/-20% 50V
2141	4822 124 80231	47uF 20% 16V
2142	2238 586 59812	100nF +80/-20% 50V
2145	4822 124 80231	47uF 20% 16V
2146	2238 586 59812	100nF +80/-20% 50V
2149	4822 124 21732	10uF 20% 25V
2150	2238 586 59812	100nF +80/-20% 50V
2151	2238 586 59812	100nF +80/-20% 50V
2152	2238 586 59812	100nF +80/-20% 50V
2153	2238 586 59812	100nF +80/-20% 50V
2154	3198 017 44740	470nF 10V
2155	2238 586 59812	100nF +80/-20% 50V
2156	3198 017 34730	47nF 16V
2157	3198 017 34730	47nF 16V
2158	2238 586 59812	100nF +80/-20% 50V
2159	3198 017 41050	1uF 10V
2161	2238 586 59812	100nF +80/-20% 50V
2162	5322 126 11578	1nF 10% 50V
2163	2238 586 59812	100nF +80/-20% 50V
2164	2238 586 59812	100nF +80/-20% 50V
2165	4822 122 33761	22pF 5% 50V
2166	5322 126 11578	1nF 10% 50V
2167	2238 586 59812	100nF +80/-20% 50V
2168	4822 126 14549	33nF 16V
2169	2238 586 59812	100nF +80/-20% 50V
2171	2238 586 59812	100nF +80/-20% 50V
2172	2238 586 59812	100nF +80/-20% 50V
2173	2238 586 59812	100nF +80/-20% 50V
2174	4822 126 14223	2,2pF 50V
2175	4822 126 14223	2,2pF 50V
2180	4822 124 80231	47uF 20% 16V
2181	2238 586 59812	100nF +80/-20% 50V
2182	4822 124 80231	47uF 20% 16V
2183	2238 586 59812	100nF +80/-20% 50V
2184	4822 124 80231	47uF 20% 16V
2185	2238 586 59812	100nF +80/-20% 50V
2186	3198 017 41050	1uF 10V
2187	3198 017 41050	1uF 10V
2188	3198 017 41050	1uF 10V
2189	3198 017 41050	1uF 10V
2190	3198 017 41050	1uF 10V
2193	4822 124 40196	220uF 20% 16V
2194	2238 586 59812	100nF +80/-20% 50V
2195	4822 124 80231	47uF 20% 16V
2196	4822 124 80231	47uF 20% 16V
2197	2238 586 59812	100nF +80/-20% 50V
2198	2238 586 59812	100nF +80/-20% 50V
2201	2238 586 59812	100nF +80/-20% 50V
2202	2238 586 59812	100nF +80/-20% 50V
2204	4822 126 14238	2,2nF 50V
2209	4822 126 14247	1,5nF 50V
2210	4822 126 14238	2,2nF 50V
2211	2238 586 59812	100nF +80/-20% 50V
2212	4822 126 13881	470pF 5% 50V
2213	3198 017 31540	150nF 10V
2214	2222 586 18812	100nF 10% 50V
2215	2222 586 18812	100nF 10% 50V
2216	4822 126 13881	470pF 5% 50V
2217	4822 126 13881	470pF 5% 50V
2218	4822 126 13881	470pF 5% 50V
2219	4822 126 13881	470pF 5% 50V
2221	4822 126 11785	47pF 5% 50V
2222	4822 126 11785	47pF 5% 50V
2223	4822 126 11785	47pF 5% 50V
2224	4822 126 11785	47pF 5% 50V
2225	4822 126 11785	47pF 5% 50V
2226	4822 126 11785	47pF 5% 50V

10-7

ELECTRICAL PARTS LIST - SD6.1 RX BOARD

2227	4822 126 11785	47pF 5% 50V
2228	4822 126 11785	47pF 5% 50V
2229	4822 126 11785	47pF 5% 50V
2230	4822 126 11785	47pF 5% 50V
2231	4822 126 11785	47pF 5% 50V
2232	4822 126 11785	47pF 5% 50V
2241	2020 552 94427	100pF 5% 50V
2242	2020 552 94427	100pF 5% 50V
2243	2020 552 94427	100pF 5% 50V
2245	2020 552 94427	100pF 5% 50V
2246	2020 552 94427	100pF 5% 50V
2247	2020 552 94427	100pF 5% 50V
2248	2020 552 94427	100pF 5% 50V
2301	2238 586 59812	100nF +80/-20% 50V
2302	4822 124 80231	47uF 20% 16V
2303	2238 586 59812	100nF +80/-20% 50V
2304	2238 586 59812	100nF +80/-20% 50V
2305	2238 586 59812	100nF +80/-20% 50V
2306	2238 586 59812	100nF +80/-20% 50V
2307	2238 586 59812	100nF +80/-20% 50V
2308	4822 124 80231	47uF 20% 16V
2311	4822 124 80231	47uF 20% 16V
2312	2238 586 59812	100nF +80/-20% 50V
2315	2238 586 59812	100nF +80/-20% 50V
2316	2238 586 59812	100nF +80/-20% 50V
2317	2238 586 59812	100nF +80/-20% 50V
2318	3198 017 34730	47nF 16V
2319	2238 586 59812	100nF +80/-20% 50V
2320	2238 586 59812	100nF +80/-20% 50V
2323	2238 586 59812	100nF +80/-20% 50V
2324	4822 122 33761	22pF 5% 50V
2325	4822 122 33761	22pF 5% 50V
2326	4822 122 33761	22pF 5% 50V
2327	4822 122 33761	22pF 5% 50V
2328	4822 122 33761	22pF 5% 50V
2341	4822 122 33761	22pF 5% 50V
2342	4822 122 33761	22pF 5% 50V
2343	4822 122 33761	22pF 5% 50V
2344	4822 122 33761	22pF 5% 50V
2345	4822 122 33761	22pF 5% 50V
2346	4822 122 33761	22pF 5% 50V

RESISTORS

3101	4822 051 30103	10k 5% 0,062W
3102	4822 051 30102	1k 5% 0,062W
3103	4822 051 30102	1k 5% 0,062W
3104	4822 051 30102	1k 5% 0,062W
3106	4822 117 11817	1k2 1% 1/16W
3107	4822 051 30102	1k 5% 0,062W
3108	4822 051 30101	100R 5% 0,062W
3109	4822 051 30101	100R 5% 0,062W
3110	4822 051 30109	10R 5% 0,062W
3111	4822 051 30109	10R 5% 0,062W
3112	4822 051 30339	33R 5% 0,062W
3113	4822 051 30339	33R 5% 0,062W
3114	4822 051 30102	1k 5% 0,062W
3115	4822 051 30472	4k7 5% 0,062W
3120	4822 117 12139	22R 5% 0,062W
3122	4822 117 12139	22R 5% 0,062W
3123	4822 117 12139	22R 5% 0,062W
3124	4822 117 12139	22R 5% 0,062W
3126	4822 117 12139	22R 5% 0,062W
3127	4822 117 12139	22R 5% 0,062W
3128	4822 117 12139	22R 5% 0,062W
3129	4822 117 12139	22R 5% 0,062W
3130	4822 117 12139	22R 5% 0,062W
3131	4822 117 12139	22R 5% 0,062W
3132	4822 117 12139	22R 5% 0,062W
3133	4822 117 12139	22R 5% 0,062W
3134	4822 117 12139	22R 5% 0,062W
3135	4822 117 12139	22R 5% 0,062W
3136	4822 117 12139	22R 5% 0,062W
3137	4822 117 12139	22R 5% 0,062W
3138	4822 117 12139	22R 5% 0,062W
3139	4822 051 30561	560R 5% 0,062W
3140	4822 117 12139	22R 5% 0,062W
3142	2322 704 67504	RST SM 0603 RC22H 750k PM1
3143	4822 117 13632	100k 1% 0,62W
3144	4822 051 30153	15k 5% 0,062W
3145	4822 117 13632	100k 1% 0,62W
3146	4822 051 30391	390R 5% 0,062W
3147	4822 051 30109	10R 5% 0,062W
3148	4822 051 30109	10R 5% 0,062W
3149	4822 117 13632	100k 1% 0,62W
3150	4822 117 13632	100k 1% 0,62W
3151	4822 051 30103	10k 5% 0,062W
3152	4822 051 30103	10k 5% 0,062W
3153	4822 051 30684	680k 5% 0,062W
3154	4822 051 30684	680k 5% 0,062W
3161	4822 051 30103	10k 5% 0,062W
3162	4822 051 30273	27k 5% 0,062W
3163	4822 051 30563	56k 5% 0,062W
3164	4822 051 30153	15k 5% 0,062W
3165	5322 117 13056	8k2 1% 0,063W
3166	4822 051 30223	22k 5% 0,062W
3167	4822 051 30103	10k 5% 0,062W
3168	4822 051 30103	10k 5% 0,062W
3170	4822 051 30102	1k 5% 0,062W
3171	4822 051 20108	1R 5% 0,1W
3173	4822 051 30334	330k 5% 0,062W
3174	4822 051 30334	330k 5% 0,062W
3175	4822 051 30103	10k 5% 0,062W
3176	4822 051 30103	10k 5% 0,062W
3177	4822 051 30103	10k 5% 0,062W

RESISTORS

3178	4822 051 30102	1k 5% 0,062W
3179	4822 051 30102	1k 5% 0,062W
3181	2322 704 61501	RST SM 0603 RC22H 150R PM1
3182	2322 704 61501	RST SM 0603 RC22H 150R PM1
3183	2322 704 61501	RST SM 0603 RC22H 150R PM1
3184	2322 704 61501	RST SM 0603 RC22H 150R PM1
3185	2322 704 61501	RST SM 0603 RC22H 150R PM1
3186	2322 704 61501	RST SM 0603 RC22H 150R PM1
3191	2322 704 61501	RST SM 0603 RC22H 150R PM1
3192	2322 704 61501	RST SM 0603 RC22H 150R PM1
3193	2322 704 61501	RST SM 0603 RC22H 150R PM1
3194	2322 704 61501	RST SM 0603 RC22H 150R PM1
3195	2322 704 61501	RST SM 0603 RC22H 150R PM1
3196	2322 704 61501	RST SM 0603 RC22H 150R PM1
3301	4822 051 30102	1k 5% 0,062W
3302	4822 051 30102	1k 5% 0,062W
3303	4822 051 30109	10R 5% 0,062W
3304	4822 051 30109	10R 5% 0,062W
3305	4822 051 30109	10R 5% 0,062W
3306	4822 051 30109	10R 5% 0,062W
3307	4822 051 30109	10R 5% 0,062W
3308	4822 051 30109	10R 5% 0,062W
3309	4822 051 30109	10R 5% 0,062W
3310	4822 051 30109	10R 5% 0,062W
3311	4822 051 30109	10R 5% 0,062W
3312	4822 051 30109	10R 5% 0,062W
3313	4822 051 30109	10R 5% 0,062W
3314	4822 051 30109	10R 5% 0,062W
3315	4822 051 30339	33R 5% 0,062W
3316	4822 051 30339	33R 5% 0,062W
3317	4822 051 30339	33R 5% 0,062W
3318	4822 051 30339	33R 5% 0,062W
3319	4822 051 30339	33R 5% 0,062W
3320	4822 051 30339	33R 5% 0,062W
3321	4822 051 30339	33R 5% 0,062W
3322	4822 051 30339	33R 5% 0,062W
3325	4822 051 30103	10k 5% 0,062W
3326	4822 051 30339	33R 5% 0,062W
3335	4822 051 30759	75R 5% 0,062W
3336	4822 051 30103	10k 5% 0,062W
3337	4822 117 11817	1k2 1% 1/16W
3338	4822 051 30103	10k 5% 0,062W
3342	4822 117 12139	22R 5% 0,062W
3343	4822 117 12139	22R 5% 0,062W
3344	4822 117 12139	22R 5% 0,062W
3345	4822 117 12139	22R 5% 0,062W
3346	4822 117 12139	22R 5% 0,062W
3348	4822 117 12139	22R 5% 0,062W
3354	4822 051 30102	1k 5% 0,062W
3355	4822 117 12139	22R 5% 0,062W
3358	4822 051 30102	1k 5% 0,062W
3361	4822 117 12139	22R 5% 0,062W
3362	4822 117 12139	22R 5% 0,062W
3363	4822 117 12139	22R 5% 0,062W
3364	4822 117 12139	22R 5% 0,062W
3365	4822 117 12139	22R 5% 0,062W
3366	4822 117 12139	22R 5% 0,062W
3367	4822 117 12139	22R 5% 0,062W
3368	4822 117 12139	22R 5% 0,062W
3369	4822 117 12139	22R 5% 0,062W
3370	4822 051 30103	10k 5% 0,062W
3371	4822 051 30103	10k 5% 0,062W
3372	4822 051 30103	10k 5% 0,062W
3373	4822 051 30103	10k 5% 0,062W
3374	4822 051 30103	10k 5% 0,062W
3375	4822 051 30103	10k 5% 0,062W
3376	4822 051 30103	10k 5% 0,062W
3381	4822 051 30109	10R 5% 0,062W
3382	4822 051 30109	10R 5% 0,062W
3386	4822 051 30103	10k 5% 0,062W
4106	4822 051 30008	0R Jumper 0603
4115	4822 051 30008	0R Jumper 0603
4116	4822 051 30008	0R Jumper 0603
4117	4822 051 30008	0R Jumper 0603
4118	4822 051 30008	0R Jumper 0603
4119	4822 051 30008	0R Jumper 0603
4122	4822 051 30008	0R Jumper 0603
4127	4822 051 30008	0R Jumper 0603
4131	4822 051 30008	0R Jumper 0603
4132	4822 051 30008	0R Jumper 0603
4301	4822 051 30008	0R Jumper 0603

COILS & FILTERS

5101	2422 549 45618	INDFXD 0603 EMI 100MHz 60R
5102	2422 549 45618	INDFXD 0603 EMI 100MHz 60R
5103	4822 157 71206	FXDIND 0805 100MHz 600R
5104	4822 157 71206	FXDIND 0805 100MHz 600R
5105	2422 549 43062	FXDIND 0603 100MHz 600R
5106	2422 549 43062	FXDIND 0603 100MHz 600R
5107	4822 157 71206	FXDIND 0805 100MHz 600R
5108	2422 549 45618	INDFXD 0603 EMI 100MHz 60R
5109	2422 549 43062	FXDIND 0603 100MHz 600R
5111	4822 157 71206	FXDIND 0805 100MHz 600R
5112	2422 549 45618	INDFXD 0603 EMI 100MHz 60R
5115	2422 549 43062	FXDIND 0603 100MHz 600R
5116	2422 549 43062	FXDIND 0603 100MHz 600R
5117	2422 549 43062	FXDIND 0603 100MHz 600R
5118	2422 549 43062	FXDIND 0603 100MHz 600R
5119	2422 549 43062	FXDIND 0603 100MHz 600R
5122	2422 549 43062	FXDIND 0603 100MHz 600R
5124	3198 018 31090	FXDIND SM 0805 10U PM10
5125	3198 018 31090	FXDIND SM 0805 10U PM10
5126	2422 549 43062	FXDIND 0603 100MHz 600R
5130	2422 543 01393	RES XTL SM 27MHz 10P CX8045

10-8

ELECTRICAL PARTS LIST - SD6.1 RX BOARD

5131	4822 157 11414	FXDIND SM 1210 1U8 PM5
5132	4822 157 11414	FXDIND SM 1210 1U8 PM5
5133	4822 157 11414	FXDIND SM 1210 1U8 PM5
5134	4822 157 11414	FXDIND SM 1210 1U8 PM5
5135	4822 157 11414	FXDIND SM 1210 1U8 PM5
5136	4822 157 11414	FXDIND SM 1210 1U8 PM5
5300	2422 549 43062	FXDIND 0603 100MHz 600R
5301	2422 549 43062	FXDIND 0603 100MHz 600R
5302	2422 549 43062	FXDIND 0603 100MHz 600R
5303	2422 549 43062	FXDIND 0603 100MHz 600R
5305	2422 549 43062	FXDIND 0603 100MHz 600R
5310	2422 549 43062	FXDIND 0603 100MHz 600R
5311	2422 549 43062	FXDIND 0603 100MHz 600R
5313	2422 549 43062	FXDIND 0603 100MHz 600R
5320	2422 549 43062	FXDIND 0603 100MHz 600R
5321	2422 549 43062	FXDIND 0603 100MHz 600R
5322	2422 549 43062	FXDIND 0603 100MHz 600R
5323	2422 549 43062	FXDIND 0603 100MHz 600R
5324	2422 549 43062	FXDIND 0603 100MHz 600R
5326	2422 549 43062	FXDIND 0603 100MHz 600R
5327	2422 549 43062	FXDIND 0603 100MHz 600R
5328	2422 549 43062	FXDIND 0603 100MHz 600R
5329	2422 549 43062	FXDIND 0603 100MHz 600R

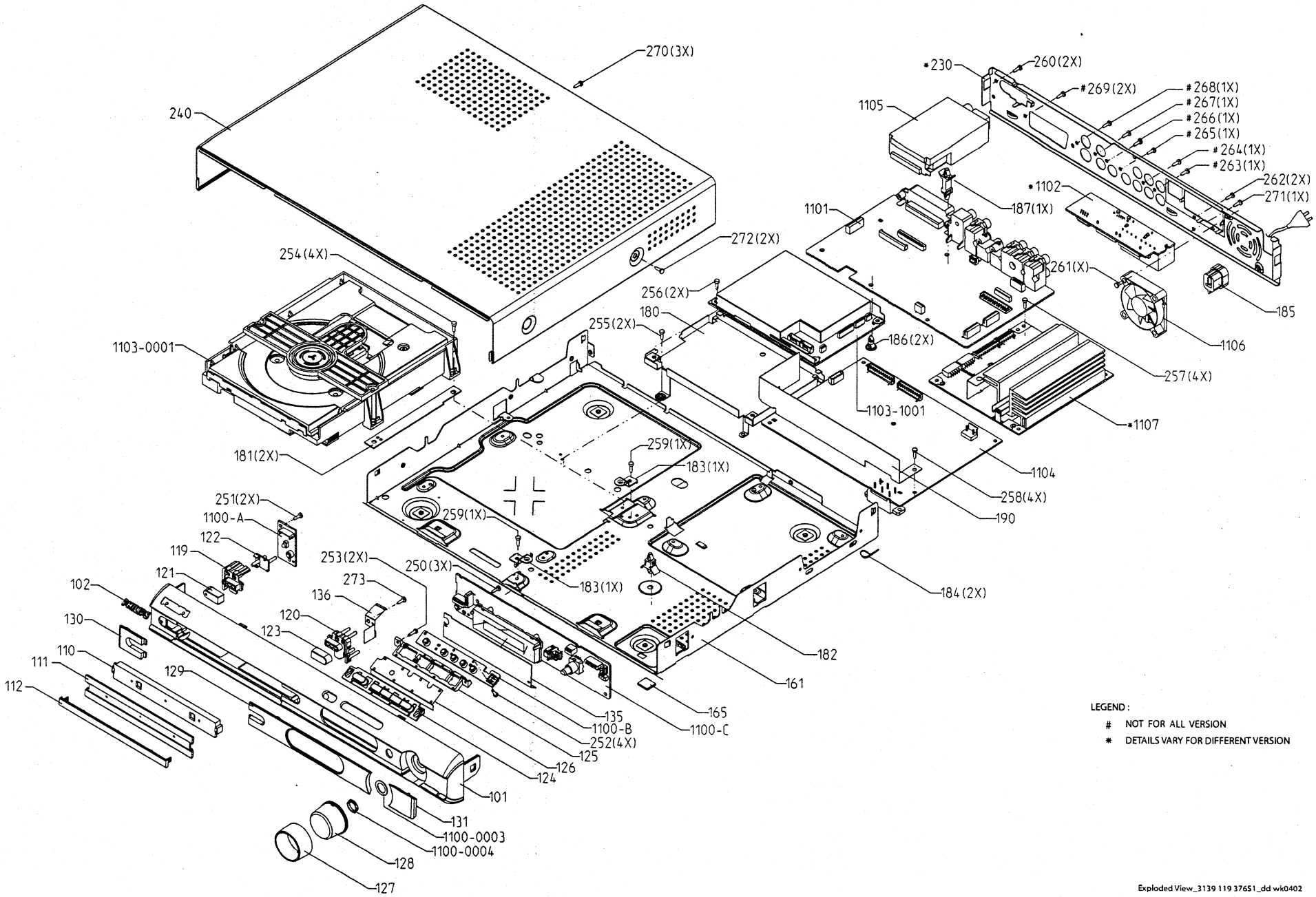
TRANSISTORS & INTEGRATED CIRCUITS

7101	4822 209 17398	IC SM LD1117DT33
7102	9322 165 15685	IC SM NCP303LSN30
7106	4822 130 11565	2SB1132
7107	4822 130 11565	2SB1132
7108	9340 547 13215	FET SIG SM BSH103
7109	9340 547 13215	FET SIG SM BSH103
7110	9340 219 30115	BC817-25W
7111	9322 201 94668	IC SM MM1646XH
7112	9322 203 35671	IC SM MT1389E
7301	9322 189 04668	IC SM M24C16-RDW6
7302	9322 199 38671	IC SM IS42S16400A-7T
7303	3139 110 53721	FLASH + EMBEDDED SW
7304	9322 185 10668	IC SM CS8415A-CZ
7306	9352 456 90115	IC SM 74HC1G125GW

Note : Only the parts mentioned in this list are normal service spare parts.

11-1

SET MECHANICAL EXPLODED VIEW



LEGEND :

\# NOT FOR ALL VERSION

* DETAILS VARY FOR DIFFERENT VERSION

MECHANICAL & ACCESSORIES PARTS LIST - MAIN UNIT

0101	3139 114 79841	Cabinet Front
0102	3139 247 51831	Badge Philips Assy Silver
0110	3139 114 79831	Cover Tray Technical
0111	3139 114 79821	Cover Tray Lens
0112	3139 114 79811	Cover Tray Orn Chrome
0119	3139 254 00431	Button Frame Standby
0120	3139 254 00421	Button Frame Open/Close
0121	3139 114 79711	Cap Standby Chrome
0122	3139 114 79721	Lightguide Standby
0123	3139 114 79701	Cap Open/Close Chrome
0124	3139 114 79691	Button Function
0125	3139 114 79801	Bracket Button Function
0127	3139 114 79761	Knob Volume
0128	3139 114 79751	Cap Volume Chrome
0129	3139 114 79791	Window Main
0130	3139 114 79781	Window Left
0131	3139 114 79771	Window Right
0165	3139 243 10080	Cushion Foot
0182	8204 055 76161	Spacer Locking KGLS-4S
0184	2422 015 16901	Saddle Mini Clamp
0185	4822 532 60948	Bush
0186	3139 254 00451	Spacer PCB H6.0 KGLS-6RT
0186	3139 254 00981	Spacer H6.4 CRLCBSRE-4-01
0187	3139 254 00461	Spacer PCB H20.9 KGLS-10S
0325	3139 119 02361	Subwoofer (SW3900SA/01)
0326	3139 119 02351	Satellite Spk Boxes (CS3900SA/01)
0331	2422 076 00546	Cable FM Aerial
0332	2422 549 45386	Antenna AM Loop LAN-011
0332	2422 549 45813	Antenna AM Loop 039S20014
0333	3139 258 70031	Remote Control
0336	2422 070 98231	⚠ Mains Cord IEC 2A5 1M8 /01
0336	4822 321 11462	⚠ Mains Cord 20"/21" PAL /01
0336	2422 070 98236	⚠ Mains Cord UK 5A 1M8 /05
0336	3103 140 25882	⚠ Mains Cord 14"/20"/21"/GB /05
0342	2422 076 00468	⚠ Cable SCART 1M1 21P BK
1104	3139 117 10671	Module SMPS03-02 150W EUR
1105	2422 542 90137	Tuner Module (A+F ENG07703Q EUR)
1106	3139 118 79760	Fan KD1245PFS3
8003	4822 320 12751	FFC Foil 04P/400/04P AD
8004	3139 111 03811	FFC Foil 09P/340/09P AD 1MMP
8200	3139 111 03781	FFC Foil 10P/120/10P AD Fold
8201	3139 111 03781	FFC Foil 10P/120/10P AD Fold
8500	3139 241 00251	FFC Foil 30P/080/30P BD 1MMP
8501	3139 111 04031	FFC Foil 16P/140/16P AD 1MMP
8502	3139 111 03971	FFC Foil 30P/100 BD 1MMP Fold
8700	3139 111 03801	FFC Foil 11P/080/11P AD

Satellite Speaker Boxes Breakdown (CS3900SA/01)

4340 702 10491	Center Speaker Box
4340 702 10501	Front Speaker Box Right
4340 702 10551	Front Speaker Box Left
4340 702 10511	Rear Speaker Box Right
4340 702 10561	Rear Speaker Box Left
4340 704 00641	Bracket

Note : Only the parts mentioned in this list are normal service spare parts.

11-2

SCREW LISTS - MAIN UNIT

250	D3 x 8
251	D3 x 8
252	D2 x 6
253	D2 x 6
254	M3 x 8
255	M3 x 6
256	M3 x 6
257	M3 x 6
258	M3 x 6
259	M3 x 4
260	M3 x 4
261	M3x 12
262	D3 x 8
264	D3 x 8
265	D3 x 8
268	D3 x 8
269	D3 x 8
270	M3 x 4
271	M3 x 4
272	M3 x 6
273	D3 x 8